INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
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100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

September 2, 2003

TO: Interested Parties / Applicant

RE: INTAT Precision Inc. / T139-7531-00011

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).
For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:
(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:
(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and

(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNTVOP.dot 8/22/03

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

INTAT Precision Inc.
State Road 3 North
Rushville, Indiana 46173

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T139-7531-00011	
Issued by: Original signed by Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date:September 2, 2003 Expiration Date:September 2, 2008

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary grey iron foundry.

Responsible Official:	Executive Vice President
Source Address:	State Road 3 North, Rushville, Indiana 46173
Mailing Address:	P.O. Box 488, Rushville, Indiana 46173
General Source Phone Number:	(765) 932-5323
SIC Code:	3321
County Location:	Rush
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rule; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) grey iron foundry lines, constructed in 1988, consisting of the following:

(1) One (1) coremaking system, including the following:

(i) three (3) core sand bins;
(ii) four (4) isocure cold box core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988, and P7 constructed in 1994, with a maximum combined capacity of processing 2.0 tons of core sand per hour, 32 pounds of resin per ton of core sand and 4.48 pounds of TEA catalyst per ton of core sand, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and one (1) scrubber (ID Scrubber #1) for control of triethylamine (TEA) emissions from core machines P4 and P5, exhausting through stack ID No. 10A, and one (1) scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7, exhausting through stack ID No. 10B.

The source voluntarily utilizes two (2) TEA scrubbers.

(2) One (1) indoor charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

(3) One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.

(4) One (1) holding system consisting of the following equipment:

(A) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(B) Six (6) ladle heaters, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, with a maximum throughput capacity of 50 tons of metal per hour, exhausting to stack ID Nos. 12A, 12B and 12C;

(5) One (1) inoculation system consisting of two (2) inoculation ladles, identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(6) One (1) pouring system consisting of two (2) automatic pouring lines, identified as P12 and P13, each with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;

(7) One (1) casting cooling system, consisting of two (2) identical cooling lines, P14 and P15, each of which includes one (1) cooling conveyor and one (1) cooling tunnel, each line with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, each line utilizing a cartridge collector for particulate control, exhausting to stacks ID Nos. 1A and 1B, respectively;

(8) One (1) shakeout system (P16) consisting of two (2) shakeout drums, each with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, each drum utilizing a cartridge collector for particulate control, exhausting to stack ID Nos. 4A and 4B, respectively;

(9) One (1) conveying system, consisting of a casting dump (P17), two (2) casting conveyors (P18), two (2) desprue conveyors (P19), two (2) sprue chutes and bins (P20), casting discharge (P21), and a rejected casting dump (P22), with each of P17 through P22 having a maximum capacity of 10 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 6A and 6B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(10) One (1) shotblasting system, consisting of a casting dump and spinblast feeder (P23), one (1) casting dump (P25), one (1) barrelblast feeder (P26), four (4) barrelblast cabinets (P27), and two (2) barrelblast discharges (P28), with P23 having a maximum capacity of 20 tons metal per hour and P25 through P28 having a maximum combined capacity of 20 tons of metal per hour, utilizing three (3) cartridge collectors for particulate control, exhausting to stack ID Nos. 7, 8A and 8B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(11) One (1) grinding system, identified as P29 and P31, with a maximum combined capacity of 20 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 8A and 8B; and

(12) Two (2) sand handling systems, consisting of nine (9) sand bins (P32), two (2) sand elevators (P33), two (2) sand mullers (P34), two (2) sand aerators (P35), two (2) sand coolers (P36), two (2) magnetic separators (P37), one (1) reclaim sand mill and screen (P38), and sand conveyors (P39), each system with a maximum capacity of 75 tons of sand per hour, utilizing five (5) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A, 3B, 4A, 4B, and 5.

(b) One (1) grey iron foundry line, constructed in 1997, consisting of the following:

(1) One (1) indoor charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;

(2) One (1) melting and pouring system, identified as ID # 1000, with a maximum capacity of 10 tons of metal per hour, utilizing a baghouse (ID # BH6100) for particulate control, exhausting to stack ID # 6100, consisting of the following equipment:

(A) Two (2) electric induction furnaces, each with a maximum capacity of 10 tons of metal per hour;
(B) One (1) electric holding furnace;
(C) Two (2) natural gas-fired ladle heaters, identified as ID # 6600 and 6610, each with a maximum heat input rate of 2 MMBtu per hour;

Note: The maximum throughput of metal for the melting and pouring system is limited to 10 tons per hour by the maximum throughput from the charge handling system of 10 tons of metal per hour and the power control systems at the plant.

(3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(5) One (1) sand and waste sand handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing two (2) baghouses (BH6300 and BH6400) for particulate control, exhausting to stack ID #s 6300 and 6400;

(6) One (1) finishing operation, identified as ID # 8000, with a maximum capacity of 5.5 tons of metal per hour, consisting of trim presses, uncontrolled, and six (6) bench grinders, utilizing fabric filters (FFA, FFB, and FFC) for control.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;

(1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;

(b) Combustion source flame safety purging on startup;

(c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(d) Refractory storage not requiring air pollution control equipment;

(e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;

(f) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months); [326 IAC 8-3-2]

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) Paved and unpaved roads and parking lots with public access;

(i) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations; [326 IAC 6-3-2]

(j) Filter or coalescer media change out;

(k) Other activities or categories not previously identified:
(1) Six (6) scrap bays, identified as P47 through P52, each with PM emissions of approximately 0.16 pound per hour; [326 IAC 6-3-2]
(2) Two (2) sand towers, identified as P55 and P56, for the grey iron foundry line constructed in 1988 (emissions are included in sand handling calculations);
(3) Maintenance shop operations, identified as P58 and P59, each with PM emissions of approximately 0.1 pounds per hour; [326 IAC 6-3-2]
(4) Two (2) collector penthouses, identified as P53 and P54, each with PM emissions of approximately 0.16 pounds per hour; [326 IAC 6-3-2]
(5) One (1) material separator (cartridge filter fallout collection) with PM emissions approximately 0.6 pounds per hour; [326 IAC 6-3-2]
(6) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour, utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour; [326

IAC 6-3-2]

(7) One (1) scrap yard.

(l) Three (3) sand towers for the grey iron foundry line constructed in 1997, which house the sand silos, bond silos, sand mullers, and sand conveyors used with the sand handling operations; and

(m) Unvented trim press operations for pinching or cleaving protruding metal from castings with no emissions.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section

408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated

noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this

existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

Pursuant to CP 139-8845-00011, issued on December 10, 1997, the Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment is are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on March 28, 2003.

(b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements of 40 CFR 68.

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall be considered a deviation from the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Part 2 MACT Application Submittal Requirement

C.22 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

(a) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).

(b) Notwithstanding paragraph (a), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:

(1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;

(2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002;

or

(3) The MACT standard or standards for the affected source categories included at the source are promulgated.

(c) Notwithstanding paragraph (a), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) grey iron foundry lines, constructed in 1988, consisting of the following:

(1) One (1) coremaking system, including the following:

(i) three (3) core sand bins;
(ii) four (4) isocure cold box core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988, and P7 constructed in 1994, with a maximum combined capacity of processing 2.0 tons of core sand per hour, 32 pounds of resin per ton of core sand and 4.48 pounds of TEA catalyst per ton of core sand, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and one (1) scrubber (ID Scrubber #1) for control of triethylamine (TEA) emissions from core machines P4 and P5, exhausting through stack ID No. 10A, and one (1) scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7, exhausting through stack ID No. 10B.

The source voluntarily utilizes two (2) TEA scrubbers.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the coremaking operation shall not exceed 6.52 pounds per hour when operating at a process weight rate of 4,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.2 PSD Minor Limit [326 IAC 2-2]

Total PM and PM10 emissions from the coremaking operation shall each not exceed 0.41 pound per ton of core sand throughput and 0.82 pound per hour.

This emission limit, in addition to the emission limits listed in conditions D.2.1 and D.2.2, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 263,150 pounds of resin per 12 consecutive month period. The total amine gas catalyst usage for core machines P4, P5, and P6 shall not exceed 36,841 pounds of amine gas catalyst per 12 consecutive month period.

(b) The VOC emissions (not including amine gas catalyst emissions) from each of the Isocure cold box core machines P4, P5, and P6 shall not exceed 0.05 pound per pound of resin.

This will limit the total VOC emissions from core machines P4, P5, and P6 to less than 25 tons per year before controls. Therefore, the three (3) isocure cold box core machines are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Compliance with these limits is also necessary to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) Any change or modification which increases emissions of VOC from core machine P7 to greater than 25 tons per year must be approved by the Office of Air Quality before such change can occur.

The VOC emission limits and usage limits shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and the cartridge collector for particulate control.

Compliance Determination Requirements

D.1.5 Particulate Control

In order to comply with conditions D.1.1 and D.1.2, the cartridge collector for particulate control shall be in operation and control emissions from the coremaking process at all times that the coremaking process is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the cartridge collector controlling the coremaking operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the cartridge collector used in conjunction with the coremaking operation, at least once per shift when the coremaking process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the cartridge collector is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Cartridge Collector Inspections

An inspection shall be performed each calendar quarter of all cartridges controlling the coremaking operation when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective cartridges shall be replaced.

D.1.9 Broken or Failed Cartridge Collector Detection

In the event that cartridge collector failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment cartridge collectors, if failure is indicated by a significant drop in the cartridge collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.3 (a), the Permittee shall maintain records of the total amine gas catalyst and resin usages for the isocure cold box core machines P4, P5, and P6 each month. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(b) To document compliance with Condition D.1.3 (b) and (c), the Permittee shall maintain records of the type of binders used for all of the Isocure cold box core machines each month in order to demonstrate that the type of binder used has not changed. INTAT Precision, Inc. is permitted to use the following binders: Isocure Part I polymeric resin and Isocure Part II polymeric MDI type diisocyanate.

(c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the coremaking operation cartridge collector stack exhaust.

(d) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.

(f) To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Two (2) grey iron foundry lines, constructed in 1988, consisting of the following:

(2) One (1) indoor charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

(3) One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.

(4) One (1) holding system consisting of the following equipment:

(A) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(B) Six (6) ladle heaters, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, with a maximum throughput capacity of 50 tons of metal per hour, exhausting to stack ID Nos. 12A, 12B and 12C;

(5) One (1) inoculation system consisting of two (2) inoculation ladles, identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(6) One (1) pouring system consisting of two (2) automatic pouring lines, identified as P12 and P13, each with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;

(7) One (1) casting cooling system, consisting of two (2) identical cooling lines, P14 and P15, each of which includes one (1) cooling conveyor and one (1) cooling tunnel, each line with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, each line utilizing a cartridge collector for particulate control, exhausting to stacks ID Nos. 1A and 1B, respectively;

(8) One (1) shakeout system (P16) consisting of two (2) shakeout drums, each with a maximum capacity of 10 tons metal per hour and 75 tons of sand per hour, each utilizing a cartridge collector for particulate control, exhausting to stack ID Nos. 4A and 4B, respectively;

(9) One (1) conveying system, consisting of a casting dump (P17), two (2) casting conveyors (P18), two (2) desprue conveyors (P19), two (2) sprue chutes and bins (P20), casting discharge (P21), and a rejected casting dump (P22), with each of P17 through P22 having a maximum capacity of 10 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 6A and 6B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(10) One (1) shotblasting system, consisting of a casting dump and spinblast feeder (P23), one (1) casting dump (P25), one (1) barrelblast feeder (P26), four (4) barrelblast cabinets (P27), and two (2) barrelblast discharges (P28), with P23 having a maximum capacity of 20 tons metal per hour and P25 through P28 having a maximum combined capacity of 20 tons of metal per hour, utilizing three (3) cartridge collectors for particulate control, exhausting to stack ID Nos. 7, 8A and 8B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(11) One (1) grinding system, identified as P29 and P31, with a maximum combined capacity of 20 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 8A and 8B; and

(12) Two (2) sand handling systems, consisting of nine (9) sand bins (P32), two (2) sand elevators (P33), two (2) sand mullers (P34), two (2) sand aerators (P35), two (2) sand coolers (P36), two (2) magnetic separators (P37), one (1) reclaim sand mill and screen (P38), and sand conveyors (P39), each system with a maximum capacity of 75 tons of sand per hour, utilizing five (5) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A, 3B, 4A, 4B, and 5.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2]

The charge handling operation (P1, P2, P3) shall comply with the following limits:

(a) Emissions of PM and PM10 shall each not exceed 0.24 pound per hour.

(b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, in addition to the emission limits listed in conditions D.1.2 and D.2.2, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.2.2 PSD Minor Limit [326 IAC 2-2]

Emissions of PM and PM10 and the throughput of metal and sand for the two (2) grey iron foundry lines, constructed in 1988, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting System (P8) and Holding Furnaces (P9)	Metal melted	0.20	90,000
Inoculation (P11)	Metal	0.20	90,000
Pouring (P12, P13)	Metal poured	0.17	90,000
Casting Cooling (P14, P15)	Metal	0.17	90,000
Shakeout (P16)	Metal	0.20	90,000
Conveying (P17 - P22)	Metal	0.16	90,000
Shotblast Operations (P23 - P28)	Metal	0.20	90,000
Grinding (P29 - P31)	Metal	0.20	90,000
Sand Handling	Mold Sand	0.05	777,600

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits combined with limited PM and PM10 emissions from the coremaking operation and the charge handling operation yield PM and PM10 emissions from the two (2) grey iron foundry lines constructed in 1988 that are less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable. Any emissions from the electric holding furnaces are accounted for in the emissions from melting in the electric induction furnaces.

D.2.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the two (2) grey iron foundry lines shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Inoculation (P11)	3A, 3B	20.0	30.51
Pouring (P12 and P13)*	2	170.0	56.76
Casting Cooling (P14 and P15)*	1A, 1B	170.0	56.76

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Shakeout (P16)*	4A, 4B	170.0	56.76
Conveying System (P17 - P22)	6A, 6B	20.0	30.51
Shotblast Operations (P23 - P28)	8A, 8B	20.0	30.51
Grinding (P29 - P31)	7, 8A, 8B	20.0	30.51
Sand Handling (P32 - P39)	3A, 3B, 4A, 4B, 5	150.0	55.44

* Includes metal and sand throughput.

The pounds per hour limitations were calculated with the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) VOC emissions from the inoculation operation (P11) shall not exceed 0.005 pound of VOC per ton of metal throughput.

(b) VOC emissions from the pouring operation (P12, P13) and cooling operation (P14, P15) combined shall not exceed 0.14 pound of VOC per ton of metal throughput.

(c) VOC emissions from the shakeout operation (P16) shall not exceed 1.2 pounds of VOC per ton of metal throughput.

(d) The throughput of metal to each of the inoculation (P11), pouring (P12, P13), cooling (P14, P15), and shakeout operations (P16) shall not exceed 37,023 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The metal throughput limit and the VOC emission limits yield VOC emissions from the two (2) foundry lines constructed in 1988 that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Conditions D.2.2 and D.2.3, the Permittee shall perform PM and PM-10 testing for the following facilities utilizing methods as approved by the Commissioner:

(1) the cartridge collectors controlling the melting system (P8) and the inoculation operation (P11) exhausting to stacks 3A and 3B;
(2) the cartridge collector controlling the pouring operation (P12, P13) exhausting to stack 2;
(3) the two (2) cartridge collectors controlling the two (2) identical cooling lines, P14 and P15, of the casting cooling operation exhausting to stacks 1A and 1B. Since each cooling line is identical, testing will only be required on one (1) of these cartridge collectors;
(4) the cartridge collectors controlling the shakeout operation (P16) exhausting to stacks 4A and 4B;
(5) the cartridge collectors controlling the conveying operation (P17 - P22) exhausting to stacks 6A and 6B;
(6) the cartridge collectors controlling the shotblast (P23 - P28) and grinding operations (P29 - P31) exhausting to stacks 8A, 8B, and 7; and
(7) the cartridge collectors controlling the sand handling operations (P32 - P39) exhausting to stacks 3A, 3B, 4A, 4B, and 5.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.4, the Permittee shall perform VOC testing for the pouring (P12 and P13), cooling (P14 or P15 since both cooling lines are identical), and shakeout operation (P16) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.7 Particulate Control

In order to comply with conditions D.2.2 and D.2.3, the cartridge collectors for particulate control shall be in operation and control emissions from the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.8 Visible Emissions Notations

(a) Visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the cartridge collectors used in conjunction with the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes, at least once per shift when the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the cartridge collectors is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.10 Cartridge Collector Inspections

An inspection shall be performed each calendar quarter of all cartridges controlling the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective cartridges shall be replaced.

D.2.11 Broken or Failed Cartridge Collector Detection

In the event that cartridge collector failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment cartridge collectors, if failure is indicated by a significant drop in the cartridge collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.12 Record Keeping Requirements

(a) To document compliance with Condition D.2.2, the Permittee shall maintain the following records:

(1) The metal throughput to the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, and grinding operations for each month.

(2) The sand throughput to the sand handling operation for each month.

Records of metal throughput to the inoculation, pouring, cooling, and shakeout operations shall also be used to document compliance with condition D.2.4(d). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(b) To document compliance with Condition D.2.8, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes once per shift.

(c) To document compliance with Condition D.2.9, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(d) To document compliance with Condition D.2.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10.

(e) To document compliance with Condition D.2.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.2 and D.2.4(d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(b) One (1) grey iron foundry line, constructed in 1997, consisting of the following:

(1) One (1) indoor charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;

(2) One (1) melting and pouring system, identified as ID # 1000, with a maximum capacity of 10 tons of metal per hour, utilizing a baghouse (ID # BH6100) for particulate control, exhausting to stack ID # 6100, consisting of the following equipment:
(A) Two (2) electric induction furnaces, each with a maximum capacity of 10 tons of metal per hour;
(B) One (1) electric holding furnace;
(C) Two (2) natural gas-fired ladle heaters, identified as ID # 6600 and 6610, each with a maximum heat input rate of 2 MMBtu per hour;

Note: The maximum throughput of metal for the melting and pouring system is limited to 10 tons per hour by the maximum throughput from the charge handling system of 10 tons of metal per hour and the power control systems at the plant.

(3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(5) One (1) sand and waste sand handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing two (2) baghouses (BH6300 and BH6400) for particulate control, exhausting to stack ID #s 6300 and 6400;

(6) One (1) finishing operation, identified as ID # 8000, with a maximum capacity of 5.5 tons of metal per hour, consisting of trim presses, uncontrolled, and six (6) bench grinders, utilizing fabric filters (FFA, FFB, and FFC) for control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2]

The charge handling operation (1000A) shall comply with the following limits:

(a) Emissions of PM and PM10 shall each not exceed 0.12 pound per hour.

(b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, in addition to the emission limits listed in condition D.3.2, yield PM and PM10 emissions from the one (1) gray iron foundry line, constructed in 1997, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.3.2 PSD Minor Limit [326 IAC 2-2]

Emissions of PM and PM10 and the throughput of metal and sand for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting & Pouring (1000)	Metal	0.70	70,000
Mold/Casting Cooling (2000)	Metal	0.60	70,000
Shakeout (3000)	Metal	0.80	70,000
Sand & Waste Sand Handling System (4000)	Mold Sand	0.10	490,000
Grinding/Cleaning (8000)	Metal	0.03	48,180 (Maximum throughput)

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits, combined with limited PM and PM10 emissions from the charge handling operation, yield PM and PM10 emissions from the one (1) grey iron foundry line constructed in 1997 that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable. Any emissions from the electric holding furnace are accounted for in the emissions from melting in the electric induction furnaces.

D.3.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the one (1) grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (1000A)	NA	10.0	19.18
Melting & Pouring (1000)	6100	10.0	19.18
Mold/Casting Cooling (2000)*	6200A	80.0	49.06
Casting Shakeout (3000)*	6200B	80.0	49.06
Sand & Waste Sand Handling (4000)	6300	70.0	47.77

Grinding/Cleaning (8000)	FFA, FFB, FFC	5.50	12.85

* Includes metal and sand throughput.

The pounds per hour limitations were calculated with the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) VOC emissions from the pouring operation (1000) and cooling operation (2000) combined shall not exceed 0.14 pound of VOC per ton of metal throughput;

(b) VOC emissions from the shakeout operation (3000) shall not exceed 1.2 pounds of VOC per ton of metal throughput;

(c) The throughput of metal to each of the pouring (1000), cooling (2000), and shakeout operations (3000) shall not exceed 37,164 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The metal throughput limit and the VOC emission limits yield VOC emissions from the one (1) foundry line constructed in 1997 that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

D.3.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

Emissions of manganese for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Manganese Emission Limitation (lb/hr)
Melting & Pouring (1000)	1.92
Mold/Casting Cooling (2000)	0.01
Shakeout (3000)	0.28
Grinding/Cleaning (8000)	0.06

These emission limits yield manganese emissions from the one (1) grey iron foundry line constructed in 1997 that are less than 10 tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) are not applicable.

D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.3.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) During the period between January, 2005 and June, 2005, in order to demonstrate compliance with Conditions D.3.2, D.3.3, and D.3.5, the Permittee shall perform PM, PM-10, and manganese testing for the following facilities utilizing methods as approved by the Commissioner:

(1) the baghouse controlling the melting & pouring operation (1000) exhausting to stack 6100;
(2) the baghouse controlling the mold/casting cooling system (2000) exhausting to stack 6200A;
(3) the baghouse controlling the shakeout operation (3000) exhausting to stack 6200B;
(4) the baghouse controlling the sand handling system (4000) exhausting to stack 6300 (PM and PM10 testing only);
(5) the baghouse controlling the waste sand handling system (7000) exhausting to stack 6400 (PM and PM-10 testing only); and
(6) the baghouse controlling the grinding/cleaning operation (8000) exhausting to stacks FFA, FFB, and FFC.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.3.4, the Permittee shall perform VOC testing for the pouring (1000), cooling (2000), and shakeout operation (3000) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.3.8 Particulate Control

Pursuant to CP-139-8845-00011, issued on December 10, 1997, and in order to comply with conditions D.3.2 and D.3.3, the baghouses and fabric filters for particulate and metallic HAP control shall be in operation and control emissions from the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes at all times that these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.9 Visible Emissions Notations

(a) Visible emission notations of the charge handling operation and the stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes, at least once per shift when the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.3.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.13 Record Keeping Requirements

(a) To document compliance with Conditions D.3.2 and D.3.5, the Permittee shall maintain the following records:

(1) The metal throughput to the melting, pouring, cooling, shakeout, and grinding/cleaning operations for each month.

(2) The sand and waste sand throughput to the sand and waste sand handling operation for each month.

Records of metal throughput to the pouring and shakeout operations shall also be used to document compliance with condition D.3.4(c). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(b) To document compliance with Condition D.3.9, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes once per shift.

(c) To document compliance with Condition D.3.10, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(d) To document compliance with Condition D.3.11, the Permittee shall maintain records of the results of the inspections required under Condition D.3.11.

(e) To document compliance with Condition D.3.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.2 and D.3.4(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;

(1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months);

(d) Other activities or categories not previously identified:

(6) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour, utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), for Q less than 10 MMBtu per hour, the pounds of PM emitted per million Btu heat input shall not exceed 0.6 pound per MMBtu. Therefore, PM emissions from each of the boilers, identified as P40 and P41, shall not exceed 0.6 pound per MMBtu heat input.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the PM from the one (1) paint booth, identified as #6601, shall

not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) paint booth and its control device.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.5 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the one (1) paint booth, identified as #6601, shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications. This requirement to operate the control is not federally enforceable.

D.4.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (SNP-1 and SNP-2) while the one (1) paint booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.7 Record Keeping Requirements

(a) To document compliance with Condition D.4.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- ☐ The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- ☐ The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011
Facility: core machines P4, P5, P6
Parameter: VOC emissions
Limit: The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 263,150 pounds of resin per 12 consecutive month period. The total amine gas catalyst usage for core machines P4, P5, and P6 shall not exceed 36,841 pounds of amine gas catalyst per 12 consecutive month period.

YEAR: _____

Month	Core Machine ID	Column 1		Column 2		Column 1 + Column 2	
		Resin Usage This Month (lbs)	Amine gas Catalyst Usage This Month (lbs)	Resin Usage for Previous 11 Months (lbs)	Amine gas Catalyst Usage for Previous 11 Months (lbs)	12 Month Total Resin Usage (lbs)	12 Month Total Amine gas Catalyst Usage (lbs)
	P4, P5, P6						
	P4, P5, P6						
	P4, P5, P6						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011
Facility: two (2) grey iron foundry lines constructed in 1988
Parameter: PM and PM10 emissions and VOC emissions
Limit:

(a) The throughput of metal to each of the following facilities shall not exceed 90,000 tons per twelve (12) consecutive month period: melting (P8) and holding furnaces (P9), inoculation (P11), pouring (P12, P13), cooling (P14, P15), shakeout (P16), conveying (P17 -P22), shotblasting (P23 - P28) and grinding (P29 -P31).

(b) The throughput of metal to each of the inoculation (P11), pouring (P12, P13), cooling (P14, P15), and shakeout operations (P16) shall not exceed 37,023 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P8, P9			
	P11			
	P12, P13			
	P14, P15			
	P16			
	P17 - P22			
	P23 - P28			
	P29 - P31			
	P8, P9			
	P11			
	P12, P13			
	P14, P15			
	P16			
	P17 - P22			

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P23 - P28			
	P29 - P31			
	P8, P9			
	P11			
	P12, P13			
	P14, P15			
	P16			
	P17 - P22			
	P23 - P28			
	P29 - P31			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011
Facility: two (2) grey iron foundry lines constructed in 1988
Parameter: PM and PM10 emissions
Limit: The throughput of sand to the sand handling operation (P32 - P39) shall not exceed 777,600 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011
Facility: one (1) grey iron foundry line constructed in 1997
Parameter: PM, PM10, and manganese emissions and VOC emissions
Limit:
(a) The throughput of metal to each of the following facilities shall not exceed 70,000 tons per twelve (12) consecutive month period: melting and pouring (1000), mold/casting cooling (2000), and shakeout (3000).
(b) The throughput of metal to each of the pouring (1000), cooling (2000), and shakeout operations (3000) shall not exceed 37,164 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011
Facility: one (1) grey iron foundry line constructed in 1997
Parameter: PM and PM10 emissions
Limit: The throughput of sand to the sand & waste sand handling operation (4000) shall not exceed 490,000 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand & Waste Sand Throughput This Month (tons)	Sand & Waste Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand & Waste Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: INTAT Precision Inc.
Source Address: State Road 3 North, Rushville, Indiana 46173
Mailing Address: P.O. Box 488, Rushville, Indiana 46173
Part 70 Permit No.: T139-7531-00011

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name:	INTAT Precision, Inc.
Source Location:	2148 State Road 3 North, Rushville, Indiana 46173
County:	Rush
SIC Code:	3321
Operation Permit No.:	T139-7531-00011
Permit Reviewer:	Trish Earls/EVP

On March 18, 2003, the Office of Air Quality (OAQ) had a notice published in the Rushville Republican, Rushville, Indiana, stating that INTAT Precision, Inc. had applied for a Part 70 Operating Permit to operate a gray iron foundry. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 10, 2003, Gary Moore of INTAT Precision, Inc. submitted comments on the proposed permit. A summary of the comments and responses is as follows:

Comment #1

We would request that the responsible official be identified by title only. The title shown in the proposed permit is correct.

Response #1

Section A.1 of the Part 70 permit is revised as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary grey iron foundry.

Responsible Official:	~~Don H. Carson Jr.,~~ Executive Vice President
Source Address:	State Road 3 North, Rushville, Indiana 46173
Mailing Address:	P.O. Box 488, Rushville, Indiana 46173
General Source Phone Number:	(765) 932-5323
SIC Code:	3321
County Location:	Rush
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rule; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Comment #2

We request that the equipment description in sections A.2(a)(1) and D.1 be simplified by replacing the language in the permit with the following text. The details in the description regarding the resin content and TEA usage rates provide unnecessary details for the process.

> "One (1) coremaking system, including three (3) core sand bins and four (4) cold box core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988 and P7 constructed in 1994, with a maximum combined capacity of 2.0 tons of core sand per hour, utilizing a cartridge collector for particulate control and exhausting to stack ID # 9, and utilizing a scrubber for control of the amine gas catalyst, exhausting to stack ID #s 10A and 10B. The source voluntarily utilizes an amine gas scrubber."

Response #2

Although the usage of resin and amine gas catalyst in core machines P4, P5, and P6 are being limited in condition D.1.3 of the Part 70 permit so that VOC emissions are limited to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the OAQ has determined that it is necessary to include the maximum resin and amine gas catalyst (TEA) usages in their emission unit descriptions, as well as for the emission unit description for core machine P7. It is necessary to identify the maximum resin and catalyst usages, as provided by the source, because it helps preserve the integrity of the potential emission calculations that were used to determine rule applicability. Another reason to do this is that, although the description is not enforceable, it holds the source to the "maximum" numbers they provided, so that if the source ever starts making cores that require a higher resin or catalyst usage than what was provided at first, it would be obvious to them that they would have to apply for a modification to their permit.

However, instead of expressing the maximum resin and catalyst usages in tons per hour, the maximum usages will be expressed in pounds per ton of cores. The maximum catalyst usage rate in pounds per ton of cores is also necessary to estimate what the core production limit will be, which, in turn is used to calculate the limited resin usage.

Also, The U.S. EPA would consider switching from one amine gas catalyst to another to be a change in the method of operation, even though emissions in pound per ton would not change. That means a source would have to propose that the new catalyst was more environmentally friendly (e.g. less hazardous) so that a pollution control project (PCP) exemption could be obtained. If a source gets a PCP exemption, it still requires a significant source modification. A PCP just exempts the project from the requirements of 326 IAC 2-2 (PSD). Therefore, the type of catalyst being used must be specified in the permit. Therefore, the specific amine gas catalyst currently in use at the source, which is TEA, must be identified. However, the specific catalyst currently in use will only be included in the emission unit descriptions.

After further discussion with INTAT, it was also learned that there are two (2) scrubbers controlling amine catalyst emissions from the core machines so this was also added to the emission unit descriptions. The equipment descriptions in section A.2(a)(1) and D.1 for the coremaking system have been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) grey iron foundry lines, constructed in 1988, consisting of the following:

(1) One (1) coremaking system, including **the following:**

(i) three (3) core sand bins**;** ~~and~~

(ii) four (4) isocure **cold box** core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988**,** and P7 constructed in 1994, ~~each~~ with a maximum **combined** capacity of processing ~~0.5~~ **2.0** ton**s** of core~~s~~ **sand** per hour, ~~0.008 ton~~ **32 pounds** of resin per ~~hour~~ **ton of core sand** and ~~0.0014 ton~~ **4.48 pounds** of TEA **catalyst** per ~~hour~~ **ton of core sand**, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and ~~a~~ **one (1)** scrubber **(ID Scrubber #1)** for **control of** triethylamine (TEA) **emissions** ~~control~~ **from core machines P4 and P5, exhausting through stack ID No. 10A, and one (1) scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7**, exhausting through stack ID No. 10B.

The source voluntarily utilizes ~~a~~ **two (2)** TEA scrubber**s** ~~with 90% control efficiency~~;

Comment #3

In the equipment descriptions in sections A.2(a)(6) and D.2 for the pouring system, please revise the capacity to 20 tons of metal per hour total for the system rather than 10 tons per hour for each pouring station.

Response #3

The maximum capacity of each of the pouring lines must be specified in the permit. Therefore, the equipment descriptions in section A.2(a)(6) and D.2 for the pouring system have not been revised as requested. However, the description has been revised to specify that the pouring system consists of two automatic pouring lines as follows:

(6) One (1) pouring system consisting of two (2) **automatic** pouring ~~units~~ **lines**, identified as P12 and P13, each with a maximum capacity of 10 tons of metal per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;

Comment #4

In the equipment descriptions in sections A.2(a)(7) and D.2 for the casting cooling system, please revise the capacity to 20 tons of metal per hour total for the system rather than 10 tons per hour for each cooling line.

Response #4

The maximum capacity of each of the cooling lines must be specified in the permit. Therefore, the equipment descriptions in section A.2(a)(7) and D.2 for the casting cooling system have not been revised as requested.

Comment #5

In the equipment descriptions in sections A.2(a)(8) and D.2 for the shakeout system, please revise the capacity to 20 tons of metal per hour and 150 tons of sand per hour for the system rather than 10 tons of metal and 75 tons of sand for each unit.

Response #5

The maximum capacity of each of the shakeout drums must be specified in the permit. Therefore, the equipment descriptions in sections A.2(a)(8) and D.2 for the shakeout system have not been revised as requested.

Comment #6

In the equipment descriptions in sections A.2(a)(9) and D.2 for the conveying system, please revise the capacity to 20 tons of metal per hour total for the system.

Response #6

The maximum capacity of each emission unit in the conveying system must be specified in the permit. However, the last sentence of the description already states that the maximum metal throughput is limited to 20 tons per hour based on the maximum melt capacity. Therefore, the equipment descriptions in sections A.2(a)(9) and D.2 for the conveying system have not been revised as requested.

Comment #7

In the equipment descriptions in sections A.2(a)(10) and D.2 for the shotblasting system, we request that the equipment description be simplified by replacing the language in the permit with the following text:

> "One shotblasting system, identified as P23 through P28, with a maximum combined capacity of 20 tons metal per hour, utilizing a baghouse for particulate control and exhausting to stack ID #s 8A and 8B."

Response #7

The OAQ has determined that it is necessary to include the specific equipment associated with each operation in the emission unit descriptions. Also, the maximum capacity of each emission unit in the shotblasting system must be specified in the permit. However, the last sentence of the description already states that the maximum metal throughput is limited to 20 tons per hour based on the maximum melt capacity. Therefore, the equipment descriptions in sections A.2(a)(10) and D.2 for the shotblasting system have not been revised as requested.

Comment #8

In the equipment descriptions in sections A.2(a)(11) and D.2 for the grinding system, we request that the equipment description be simplified by replacing the language in the permit with the following text:

> "One grinding system, identified as P29, P30, and P31, with a maximum combined capacity of 20 tons metal per hour, utilizing a baghouse for particulate control and exhausting to stack ID #s 7, 8A and 8B."

Response #8

The OAQ has determined that it is only necessary to include the number of grinding systems with the associated control devices and maximum throughput capacity in the emission unit descriptions. It is not necessary to specifically identify each individual grinder in the grinding system. Therefore, the equipment descriptions in sections A.2(a)(11) and D.2 for the grinding system have been revised as shown below. Note that an inspection conducted at this source by an IDEM inspector on January 8, 2003, indicated that the emission unit, identified as P30 in previous permits issued to this source, no longer exists and has been removed from the Part 70 permit. Also, the inspector's report also indicated that the grinding operation only exhausts to stacks 8A and 8B. The equipment descriptions in sections A.2(a)(11) and D.2 for the grinding system are revised as follows:

(11) One (1) grinding system, ~~consisting of six (6) single-wheel grinders (P29), and eleven (11) downdraft benches (P31)~~ **identified as P29 and P31**, with a maximum combined capacity of 20 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 8A and 8B; and

Comment #9

In the equipment descriptions in sections A.2(a)(12) and D.2 for the two (2) sand handling systems, we request that the equipment description be simplified by replacing the language in the permit with the following text:

> "Two (2) sand handling systems, identified as P32 through P39, with a maximum capacity of 75 tons sand per hour for each system, utilizing a baghouse for particulate control and exhausting to stack ID #s 3A, 3B, 4A, 4B, and 5."

Response #9

The equipment description in sections A.2(a)(12) and D.2 for the two (2) sand handling systems has been revised to clarify that each sand handling system has a maximum capacity of 75 tons of sand per hour. However, the specific equipment included in the sand handling systems has not been removed. The OAQ has determined that it is necessary to include the specific equipment associated with each operation in the emission unit descriptions. Also, the equipment associated with the equipment ID numbers can be more easily identified.

(12) Two (2) sand handling systems, consisting of nine (9) sand bins (P32), two (2) sand elevators (P33), two (2) sand mullers (P34), two (2) sand aerators (P35), two (2) sand coolers (P36), two (2) magnetic separators (P37), one (1) reclaim sand mill and screen (P38), and sand conveyors (P39), each **system** with a maximum capacity of 75 tons of sand per hour, utilizing five (5) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A, 3B, 4A, 4B, and 5.

Comment #10

The mold/casting cooling system and the casting shakeout system listed under sections A.2(b)(3) and (4) and D.3 of the Part 70 permit exhaust to a single baghouse identified as BH6200, which has two exhaust points. As such we would request that the last portion of each of these descriptions be modified to read: "...utilizing a baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B."

Response #10

Based on further discussions with the source, the baghouse controlling the mold/casting cooling system and the casting shakeout system has been determined to be one baghouse which consists of two modules for a clean and dirty side. Therefore, the emission unit descriptions for the mold/casting system and the casting shakeout system in sections A.2(b)(3) and (4) and D.3 have been revised as follows:

(3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing ~~two (2)~~ **one (1)** baghouse~~s~~ (ID # BH6200~~A and BH6200B~~) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing ~~two (2)~~ **one (1)** baghouse~~s~~ (ID # BH6200~~A and BH6200B~~) for particulate control, exhausting to stack ID #s 6200A and 6200B;

Comment #11

The sand handling system and the waste sand handling system listed under sections A.2(b)(5) and (6) and D.3 of the Part 70 permit are actually integrated and controlled by the same control systems (Baghouse BH6300 and BH6400). As such the descriptions found in these sections should be combined and modified to read as follows:

(5) One (1) sand and waste sand handling system, identified as ID #4000, with a maximum capacity of 70 tons of sand per hour, utilizing two baghouses (BH6300 and BH6400) for particulate control, exhausting to stacks ID# 6300 and 6400.

(6) Delete

Response #11

The equipment descriptions in section A.2(b)(5) and (6) and section D.3 for the sand handling system and the waste sand handling system are revised as follows:

(5) One (1) sand **and waste sand** handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing ~~a~~ **two (2)** baghouse**s** (BH6300 **and BH6400**) for particulate control, exhausting to stack ID #**s** 6300 **and 6400**;

~~(6) One (1) waste sand handling system, identified as ID # 7000, with a maximum capacity of 1.9 tons of sand per hour, utilizing a baghouse (BH6400) for particulate control, exhausting to stack ID # 6400;~~

Since the sand handling and waste sand handling systems have been combined as one facility with a maximum sand throughput of 70 tons per hour, the emission calculations in Appendix A have been revised to reflect this. See responses 24 and 25 below for revisions to conditions D.3.1, now re-numbered D.3.2, and D.3.2, now re-numbered D.3.3, which reflect this change.

Comment #12

We have recently revised our Emergency Reduction Plan and submitted it to IDEM on March 28, 2003. Please revise condition C.14, Emergency Reduction Plans, to note the date that this most recent revision

was submitted. Please find attached a copy of that submittal.

Response #12

Condition C.14 is revised as follows:

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on ~~December 9, 1996~~ **March 28, 2003**.

(b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.
[326 IAC 1-5-3]

Comment #13

Condition C.16, Compliance Monitoring Plan - We do not believe that 40 CFR Part 70 or 326 IAC 2-7 provides any authority to require the preparation of a Compliance Response Plan (CRP) or to establish the basis for a violation of the permit for failure to conduct the identified response steps. Failure to take specific response steps should not be interpreted in any way as evidence of non-compliance with an underlying applicable requirement, which is implied by the permit condition. We request that all references to a CRP be eliminated from this condition.

Response #13

There is sufficient authority for requiring a Compliance Response Plan as part of a Compliance Monitoring Plan. 326 IAC 2-7-5(1) requires that all Title V permits contain operational requirements and limitations that assure compliance with all applicable requirements. 326 IAC 2-7-5(3) requires that all Title V permits contain monitoring and related record keeping requirements which assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. 326 IAC 2-7-5(3)(A)(ii) requires that, at a minimum, the periodic monitoring requirements must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance, even where the applicable requirement does not require periodic testing or instrumental monitoring.

Furthermore, the Compliance Response Plan (CRP) is part of the overall Compliance Monitoring Plan (CMP). The CMP calls for two types of maintenance: preventive maintenance and corrective maintenance. The OAQ received many comments from the regulated community regarding the previous version of the CMP, which included preventive and corrective maintenance in the same document, the Preventive Maintenance Plan (PMP). These comments requested that the OAQ split the PMP into two plans: one for preventive maintenance and one for corrective maintenance. Therefore, the OAQ responded by splitting the preventive maintenance and the corrective maintenance into the PMP and CRP, respectively. The requirement that the permit contain operational requirements and limitations that assure compliance with all applicable requirements, coupled with the rule requirements for compliance monitoring, provides all the necessary authority for this permit requirement. Therefore, the IDEM disagrees with the position that the CRP be eliminated from condition C.16.

Comment #14

Condition C.20, General Reporting Requirements - Under this Title V permit, we are required to submit an annual Compliance Certification, a quarterly Compliance Monitoring Report, and a quarterly Deviation Report. Rule 326 IAC 2-7-5(3)(C) requires submittal of monitoring reports at least every six months. We believe that semiannual Compliance Monitoring Report and Deviation Report submittal is the proper frequency until a more frequent submittal is specifically requested by the administrator. In addition, we believe that quarterly Compliance Monitoring Report submittal represents an unnecessary burden on our staff considering the excellent compliance history at this source. We request that Compliance Monitoring Reports and Deviation Reports be required on a semiannual basis by the Title V permit.

Response #14

326 IAC 2-7-5(3)(C)(i) sets out the requirement of reporting required monitoring at least every six months. This report must include an identification of all permit deviations. 326 IAC 2-7-5(3)(c)(ii) sets out a separate requirement for reporting those deviations, including all the information required in each deviation report. The OAQ maintains that reporting deviations every six months is not adequate to ensure that the cause of any reoccurring deviation is corrected in a timely fashion. The OAQ also believes that a period of time longer than every quarter will usually not provide sufficient reporting of continuous compliance. The OAQ has determined that every three (3) months is a reasonable amount of time to report non-emergency deviations, rather than the shorter reporting times required by the Emergency Provisions. The source will report deviations quarterly on the Quarterly Deviation and Compliance Monitoring Report. The use of alternate reporting periods is authorized pursuant to 326 IAC 2-7-6(6) (Compliance Requirements) which states "Such other provisions as the commissioner may require", and pursuant to IC 13-14-1-13 which gives the Commissioner authority to establish monitoring and reporting requirements. No changes have been made to this condition as a result of this comment.

Comment #15

We request that the specific limits for core machine P7 in condition D.1.3, and all associated recordkeeping and reporting requirements be removed from the permit. The uncontrolled Potential to Emit of VOC from this core machine is less than 25 tons per year, and as such the requirements of 326 IAC 8-1-6 do not apply. We also request that paragraph (d) be removed from this condition. Since the annual catalyst gas usage is already specified in paragraphs (a) and (b), there is no need to also specify a limit on the catalyst gas usage rate per ton of cores. Lastly, we would request that the pounds of resin and catalyst gas limits in condition D.1.3 be modified to allow the use of 263,150 pounds of resin and 36,840 pounds of catalyst gas. We believe that this allotment of resin and catalyst gas is a more accurate allocation based on our core formulations. These limits still ensure that uncontrolled emissions of VOCs are less than 25 tons per year as shown in the following calculation:

$$\frac{(263{,}150 \text{ lbs resin} \times 0.05 \text{ lbs VOC/lb resin}) + 36{,}840 \text{ lbs catalyst VOC}}{2000 \text{ lbs/ton}} = 24.99 \text{ tons per year}$$

Response #15

Core machine P7 has potential uncontrolled VOC emissions of less than 25 tons per year, therefore, it is not subject to the requirements of 326 IAC 8-1-6. The limit on VOC emissions was incorrectly applied in the draft permit. This limit will be removed from condition D.1.3 as well as the recordkeeping and reporting requirements associated with this limit in condition D.1.10 and D.1.11.

Since the maximum resin and catalyst usages in pounds per ton of cores is now being included in the equipment descriptions, it is not necessary to include these usages as limits in a permit condition. Therefore, the limit on TEA catalyst usage rate per ton of cores has been removed from paragraph (c) of condition D.1.3.

Based on the revised resin usage limit that the source is requesting and a maximum core resin content of 1.6% based on the maximum resin usage rate provided, the revised resin usage limit is equivalent to a core production limit of 8,223 tons per year. Based on this and the revised catalyst usage limit that the source is requesting, the maximum amine gas catalyst usage rate was changed from 5.6 pounds per ton of cores to 4.48 pounds per ton of cores, which is now reflected in the revised equipment descriptions in response #2 above. Condition D.1.3 is revised to read as follows:

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-2] ~~[40 CFR 52.21]~~

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed ~~221,333~~ **263,150** pounds of resin per 12 consecutive month period. The total ~~TEA~~ **amine gas catalyst** usage for core machines P4, P5, and P6 shall not exceed ~~38,733~~ **36,841** pounds of ~~TEA~~ **amine gas catalyst** per 12 consecutive month period.

~~(b) The resin usage for core machine P7, constructed in 1994, shall not exceed 221,333 pounds of resin per 12 consecutive month period. TEA usage for core machine P7 shall not exceed 38,733 pounds of TEA per 12 consecutive month period.~~

~~(c)~~**(b)** The VOC emissions (not including ~~TEA~~ **amine gas catalyst emissions**) from each of the Isocure **cold box** core machines **P4, P5, and P6** shall not exceed 0.05 pound per pound of resin.

~~(d) The TEA emissions from each of the Isocure core machines shall not exceed 5.6 pounds per ton of cores.~~

This will limit the total VOC emissions from core machines P4, P5, and P6 ~~and the VOC emissions from core machine P7 each~~ to less than 25 tons per year before controls. Therefore, the ~~four (4)~~ **three (3)** isocure **cold box** core machines are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Compliance with these limits is also necessary to render the requirements of ~~40 CFR 52.21 and~~ 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) Any change or modification which increases emissions of VOC from core machine P7 to greater than 25 tons per year must be approved by the Office of Air Quality before such change can occur.

Records of the type of binders used in core machine P7 must still be maintained in the form of MSDS in order to verify that they have not changed, however, there are no reporting requirements for core machine P7. Conditions D.1.10 and D.1.11 have been revised as follows:

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition~~s~~ D.1.3 (a) ~~and (b)~~, the Permittee shall maintain records of the ~~TEA~~ **total amine gas catalyst** and resin usages for ~~each of~~ the isocure **cold box** core machines **P4, P5, and P6** each month.

(b) To document compliance with Condition D.1.3 ~~(c)~~**(b) and (c)**, the Permittee shall maintain records of the type of binders used for all of the Isocure **cold box** core machines each month in order to demonstrate that the type of binder used has not changed. INTAT Precision, Inc. is permitted to use the following binders: Isocure Part I polymeric resin and Isocure Part II polymeric MDI type diisocyanate.

(c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the coremaking operation baghouse stack exhaust.

(d) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3(a) ~~and (b)~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

The quarterly report form has also been revised to reflect these revised limits.

See response #24 below for updated Potential to Emit After Issuance table reflecting the revised limits.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment #16

Conditions D.1.4, D.2.5, and D.3.3 require a preventive maintenance plan (PMP) for both the emission units and for emission control devices. We do not believe that there are any preventive maintenance measures for the emission units themselves that would be related to our ability to comply with the associated emission limits, and therefore we would request that this condition be modified to only require a PMP for the associated control devices.

Response #16

The Preventive Maintenance Plan requirement must be included in every applicable Title V permit pursuant to 326 IAC 2-7-5(13). Both of those rules refer back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

(1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),

(2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and

(3) The identification and quantification of the replacement parts for the facility which the permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of

the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment.

The OAQ has determined that a preventive maintenance plan is required for the emission units and their control devices in sections D.1, D.2, and D.3 of the permit. Maintaining the emission units in good working order is as important as maintaining the control devices in good working order to ensure compliance with the applicable emission limits. Therefore, there have been no changes made as a result of this comment.

Comment #17

We believe that for a modern, clean and heavily controlled operation such as ours, per shift visible emission (VE) notations are excessive. We therefore request that the permit require daily instead of per shift VE notations in conditions D.1.6, D.2.8, and D.3.9. On a day to day basis, our production and associated emissions are relatively consistent and do not suffer from radical changes. After many years of observing the workings and emissions from this foundry operation, we do not believe that per shift VE notations would provide any information beyond that which daily VE notations would provide. Also, our aggressive maintenance standards have resulted in very reliable particulate control equipment operation.

In addition, although some exhaust points are visible to employees that must occasionally move about the facility grounds to complete their responsibilities, the locations of these exhausts do not allow observations from only one or two positions. Therefore, VE notations would have to be taken from multiple locations, representing a considerable time contribution from the individual with this responsibility. Given the current business environment, we maintain as small a work force as possible and do not have many personnel who could be given this responsibility. A daily observation cycle would represent an acceptable interval, both from a compliance and personnel standpoint.

Response #17

Compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Baghouse or cartridge collector failure can occur suddenly; therefore visible emissions notations and monitoring of baghouse operational parameters should be performed more frequently than daily in such cases where a source operates more than one shift per day. The required frequency of compliance monitoring is once per shift in order to demonstrate continuous compliance unless specified otherwise by an applicable rule. The OAQ believes that visible emissions notations once per operating shift is a reasonable requirement.

Further, while the nature of a facility's operation may not vary from shift to shift, the personnel at the facility does change from shift to shift. The OAQ believes that all shifts should be in tune with the work practices necessary to ensure continual compliance with permit requirements. The OAQ believes that these work practices should include an understanding and awareness of plant emissions during normal operations. This knowledge and awareness during all shifts can minimize lag time in addressing control failure. Therefore, conditions D.1.6, D.2.8, and D.3.9 will not be revised as a result of this comment.

Comment #18

Conditions D.1.7, D.2.9, and D.3.10, Parametric Monitoring - We have not seen evidence that semiannual pressure gauge calibration is necessary, and believe that annual calibration would be more than adequate. We request that our permit indicate an annual calibration frequency.

Response #18

The OAQ has determined that semiannual pressure gauge calibration is necessary to verify that accurate pressure drop measurements are being recorded. The OAQ does not agree that annual calibration is

sufficient for maintaining accuracy. No changes have been made as a result of this comment.

Comment #19

Conditions D.1.7, D.2.9, and D.3.10, Parametric Monitoring - We request that pressure drop records be kept on a daily basis. Pressure drop records on a per shift basis will provide no additional benefit over daily pressure drop records. This is because the types of filter systems that are used at this facility do not suffer from radical shifts in pressure drop over short time periods. This observation is based on many years of observing the workings of this foundry operation and managing the day to day maintenance of the equipment.

Response #19

As stated in Response #17 above, compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Monitoring of baghouse or cartridge collector operational parameters should be more frequently than daily in such cases where a source operates more than one shift per day because baghouse failure can occur suddenly. The OAQ believes that pressure drop readings once per operating shift is a reasonable requirement. No changes have been made as a result of this comment.

Comment #20

Conditions D.1.8 and D.2.10, Baghouse Inspections - We have experienced very reliable baghouse operation that we attribute to good maintenance practices, and do not believe that quarterly inspections would provide any benefit beyond that which semiannual inspections would provide. In addition, the core room and line one processes are controlled with cartridge collectors, which we currently replace on a semi-annual schedule, and these units do not allow for an inspection of the clean side of the collector. We request that the inspection frequency be revised to reflect a semi-annual schedule for the core room and line 1. We do not have vents that we can redirect. Therefore, we request to have the following phrase deleted from these conditions, "*A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.*"

Response #20

Conditions D.1.8 and D.2.10 are required to minimize excess emissions, to the extent feasible, caused by events such as a control device failure. The OAQ does not believe that semiannual inspections are sufficient to insure proper operation of the cartridge collectors. Also, in this case since the cartridge collectors are replaced semiannually, semiannual inspections would not sufficiently indicate how the old cartridge collector performed during its useful life.

Since the source has indicated that they do not have vents that can be redirected, conditions D.1.8 and D.2.10 are revised to reflect this. Also, since this source uses cartridge collectors for particulate control for the core room and older foundry line, these conditions are further revised to indicate this. Additionally, the quarterly inspections should not occur in consecutive months. The conditions are revised as follows:

D.1.8 ~~Baghouse~~ **Cartridge Collector** Inspections

An inspection shall be performed each calendar quarter of all ~~bags~~ **cartridges** controlling the coremaking operation when venting to the atmosphere. ~~A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.~~ **Inspections required by this condition shall not be performed in consecutive months.** All defective ~~bags~~ **cartridges** shall be replaced.

D.2.10 ~~Baghouse~~ **Cartridge Collector** Inspections

An inspection shall be performed each calendar quarter of all ~~bags~~ **cartridges** controlling the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes when venting to the atmosphere. ~~A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.~~ **Inspections required by this condition shall not be performed in consecutive months.** All defective ~~bags~~ **cartridges** shall be replaced.

Comment #21

Conditions D.1.9, D.2.11, and D.3.12, Broken or Failed Bag Detection - The Emergency provisions of the permit provide a proper framework to address failed emission control equipment. This condition establishes a potential separate violation without even a reference to an underlying applicable requirement. The inclusion of a separate requirement to shut down an emission unit without such an underlying regulatory basis is an illegal exercise of IDEM's authority. Conditions requiring shutdown of control equipment during malfunction conditions are specifically covered by section B.13, Emergency Provisions. Considering that the Emergency Provisions are applicable source wide for any type of control equipment, and have been included as a specific B section, we request that conditions D.1.9, D.2.11, and D.3.12 be removed from the permit.

Response #21

Pursuant to 326 IAC 2-7-5(1)(F), each Part 70 permit is required to contain conditions which minimize excess emissions, to the extent feasible, caused by events such as a bag failure. The requirements shall take into consideration available technologies, safety, cost, and other relevant factors. The OAQ does not consider shutting down the cartridge collectors and baghouses and associated production equipment to be infeasible in this case.

A bag failure may qualify as an "emergency" as defined in condition B.13 for purposes of an affirmative defense against a violation of the specific permit condition. However, once the bag failure is observed, continuing to operate the equipment and venting uncontrolled particulate matter to the atmosphere may not be considered an attempt by the permittee to take all reasonable steps to minimize levels of emissions that exceed an emission standard or other requirement in the permit.

Therefore, the OAQ believes that the requirement to shutdown the affected compartments is a reasonable action to ensure compliance with the particulate matter limitations. Also, applicability of the emergency provisions of 326 IAC 2-7-16 will be determined on a fact specific basis if necessary. No revisions were made to the permit as a result of this comment.

Comment #22

Condition D.1.10(a), Record Keeping Requirements - Paragraph (a) requires that we keep records for each core machine. As noted above, we do not believe that a specific limit is necessary for core machine P7 based on its Potential to Emit. In addition, the resin and catalyst gas usage limits in section D.1.3 are for a group of core machines (P4, P5, and P6). We would request that this paragraph be amended to indicate that the records are for the group of machines listed in section D.1.3 which has a resin and catalyst gas usage limit.

Response #22

Core machine P7 has potential uncontrolled VOC emissions of less than 25 tons per year, therefore, it is not subject to the requirements of 326 IAC 8-1-6. The limit on VOC emissions was incorrectly applied in the draft permit. Condition D.1.3 was revised as shown in Response #15 above. However, records of the type of binders used in core machine P7 must still be maintained in the form of MSDS in order to verify that they have not changed, however, there are no reporting requirements for core machine P7. Condition D.1.10 has been revised as shown in Response #15 above to only require records of resin and catalyst usage for core machines P4, P5, and P6 combined.

Comment #23

Conditions D.1.10, D.2.12, and D.3.13, Record Keeping Requirements - We do not have the ability to redirect vents to the inside of the building, and therefore the references in these conditions to redirecting the vents should be removed.

Response #23

Paragraph (e) of condition D.1.10 is revised to read as follows:

D.1.10 Record Keeping Requirements

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 ~~and the dates the vents are redirected~~.

Paragraph (d) of conditions D.2.12 and D.3.13 are revised to read as follows:

D.2.12 Record Keeping Requirements

(d) To document compliance with Condition D.2.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10 ~~and the dates the vents are redirected~~.

D.3.13 Record Keeping Requirements

(d) To document compliance with Condition D.3.11, the Permittee shall maintain records of the results of the inspections required under Condition D.3.11 ~~and the dates the vents are redirected~~.

Comment #24

Condition D.2.1 and D.3.1, PSD Minor Limit - This condition establishes PM/PM10 limits for the various processes that were installed in 1988, such that the total allowable emissions from all of the processes (including the core sand system in condition D.1) are less than 100 tons per year. We do not agree with some of the underlying calculations that the state has used, however. Specifically the state's calculations of PM/PM10 from the charge handling system are based on an inappropriate emission factor from AP-42. It may be an accurate emission factor for charge systems associated with a Cupola melt operation where the system handles scrap iron, coke, limestone and other additives. Our process only handles scrap iron and the scrap handling systems are located inside our building. As such we believe that emissions from the charge handling system are negligible. We would also note that the emissions associated with actually charging the furnaces are controlled by the melt system baghouse controls. As such we would request that the emission limits associated with these processes be amended consistent with the following tables (one for condition D.2.1 and one for condition D.1.3). Please note that we have also proposed slightly higher throughput limits associated with each of these processes. We have also amended the table for

Condition D.3.1 to eliminate the separate limit for the "Waste Sand Handling System". Waste sand is handled by the main sand handling system. Portions of the sand system are controlled by baghouse BH6300 and other portions are controlled by baghouse BH6400. As such, compliance with the emission limitations in the table would be based on the combined emissions from these two control devices.

Proposed Revised table for Condition D.2.1

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput limit (tons per 12 consecutive month period)
Melting System (P8) and Holding Furnace (P9)	Metal Melted	0.23	90,000
Inoculation (P11)	Metal	0.22	90,000
Pouring (P12, P13)	Metal Poured	0.19	90,000
Casting Cooling (P14, P15)	Metal Poured	0.19	90,000
Shakeout (P16)	Metal Poured	0.22	90,000
Conveying (P17 - P22)	Metal Poured	0.18	90,000
Shotblast Operations (P23 - P28)	Metal Poured	0.23	90,000
Grinding (P29 - P31)	Metal Poured	0.23	90,000
Sand Handling	Mold Sand	0.06	777,600

Proposed Revised table for Condition D.3.1

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput limit (tons per 12 consecutive month period)
Melting & Pouring (1000)	Metal Poured	0.70	70,000
Mold/Casting Cooling (2000)	Metal Poured	0.60	70,000
Shakeout (3000)	Metal Poured	0.80	70,000
Sand & Waste Sand Handling Systems (4000)	Mold Sand	0.10	490,000
Grinding/Cleaning (8000)	Metal Poured	0.03	48,180

Response #24

In order to avoid using emission factors from US EPA's AP-42 to calculate emissions, alternate emission factors must be established through stack testing or they must be based on another emission factor source that is accepted by US EPA or in some cases another state environmental agency. While it may be true that the actual emissions from the charge handling operation at this source are less than those estimated using the AP-42 emission factor, the source is unable to perform a stack test on this operation and is not able to present an acceptable alternative emission factor from another emission factor source. Therefore, the AP-42 emission factors must be used.

However, the charge handling operation is performed entirely inside the building, and the source has agreed to accept and comply with permit conditions limiting each of the charge handling operations for the older foundry lines and the newer foundry line to 3% opacity based on four consecutive readings using Method 9. Based on this limit, a control efficiency of 98% will be accepted for the building enclosure. Therefore, PM and PM10 emission limits have also been added for charge handling for all the foundry lines based on the controlled PM emissions from charge handling using a 98% control efficiency. As a result, the PSD minor PM and PM10 emission limits in conditions D.2.1, now re-numbered D.2.2, and D.3.1, now re-numbered D.3.2, have been revised. The limits on charge handling combined with the PM and PM10 emission limits for coremaking in condition D.1.2 and the revised PM and PM10 limits in condition D.2.1, now D.2.2, will limit PM and PM10 emissions from the two (2) foundry lines constructed in 1988 to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable. Likewise, the limits on charge handling combined with the revised PM and PM10 limits in condition D.3.1, now D.3.2, will limit PM and PM10 emissions from the one (1) foundry line constructed in 1997 to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable. Additionally, the equipment descriptions for the charge handling operations have been revised to indicate they are performed inside the building. The new conditions D.2.1 and D.3.1, added to limit emissions from the charge handling operations, and the revised conditions D.2.1, now D.2.2, and D.3.1, now D.3.2, read as follows:

D.2.1 PSD Minor Limit [326 IAC 2-2]

The charge handling operation (P1, P2, P3) shall comply with the following limits:

(a) Emissions of PM and PM10 shall each not exceed 0.24 pound per hour.

(b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, in addition to the emission limits listed in conditions D.1.2 and D.2.2, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.2.~~1~~**2** PSD Minor Limit [326 IAC 2-2]~~[40 CFR 52.21]~~

Emissions of PM and PM10 and the throughput of metal and sand for the two (2) grey iron foundry lines, constructed in 1988, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting System (P8) and Holding Furnaces (P9)	Metal melted	~~0.19~~ **0.20**	~~87,295~~ **90,000**
Inoculation (P11)	Metal	~~0.19~~ **0.20**	~~87,295~~ **90,000**

Pouring (P12, P13)	Metal poured	~~0.13~~ **0.17**	~~87,295~~ **90,000**
Casting Cooling (P14, P15)	Metal	~~0.09~~ **0.17**	~~87,295~~ **90,000**
Shakeout (P16)	Metal	~~0.13~~ **0.20**	~~87,295~~ **90,000**
Conveying (P17 - P22)	Metal	~~0.12~~ **0.16**	~~87,295~~ **90,000**
Shotblast Operations (P23 - P28)	Metal	~~0.20~~ **0.20**	~~87,295~~ **90,000**
Grinding (P29 - P31)	Metal	~~0.20~~ **0.20**	~~87,295~~ **90,000**
Sand Handling	Mold Sand	~~0.03~~ **0.05**	777,600

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits combined with limited PM and PM10 emissions from the coremaking operation **and the charge handling operation** yield PM and PM10 emissions from the two (2) grey iron foundry lines constructed in 1988 that are less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ are not applicable. Any emissions from the electric holding furnaces are accounted for in the emissions from melting in the electric induction furnaces.

D.3.1 PSD Minor Limit [326 IAC 2-2]

The charge handling operation (1000A) shall comply with the following limits:

(a) Emissions of PM and PM10 shall each not exceed 0.12 pound per hour.

(b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, in addition to the emission limits listed in condition D.3.2, yield PM and PM10 emissions from the one (1) gray iron foundry line, constructed in 1997, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.3.~~1~~**2** PSD Minor Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

Emissions of PM and PM10 and the throughput of metal and sand for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
~~Charge Handling (1000A)~~	~~Metal~~	~~0.60~~	~~70,000~~
Melting & Pouring (1000)	Metal	~~0.50~~ **0.70**	70,000
Mold/Casting Cooling (2000)	Metal	~~0.51~~ **0.60**	70,000

Shakeout (3000)	Metal	~~0.51~~ **0.80**	70,000
Sand **& Waste Sand** Handling System (4000)	Mold Sand	~~0.07~~ **0.10**	~~481,724~~ **490,000**
~~Waste Sand Handling System (7000)~~	~~Waste Sand~~	~~0.90 (PM) 0.54 (PM10)~~	~~16,644~~
Grinding/Cleaning (8000)	Metal	~~0.02~~ **0.03**	~~N/A~~ **48,180** (Maximum throughput ~~is 5.5 tons/hr~~)

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits**, combined with limited PM and PM10 emissions from the charge handling operation,** yield PM and PM10 emissions from the one (1) grey iron foundry line constructed in 1997 that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ are not applicable. Any emissions from the electric holding furnace are accounted for in the emissions from melting in the electric induction furnaces.

The equipment descriptions in section A.2(a)(2) and (b)(1), D.2, and D.3 for the charge handling operations are revised to read as follows:

(2) One (1) **indoor** charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

(1) One (1) **indoor** charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;

Conditions D.2.8, D.2.12(a) and (b), D.2.13, D.3.9, D.3.13(a) and (b), and D.3.14, are revised as follows:

D.2.8 Visible Emissions Notations

(a) Visible emission notations of the **charge handling operation and the** stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes shall be performed **once per shift** during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.12 Record Keeping Requirements

(a) To document compliance with Condition D.2.~~1~~**2**, the Permittee shall maintain the following records:

(1) The metal throughput to the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, and grinding operations for each month.

(2) The sand throughput to the sand handling operation for each month.

Records of metal throughput to the inoculation, pouring, cooling, and shakeout operations shall also be used to document compliance with condition D.2.~~3~~**4**(d).

(b) To document compliance with Condition D.2.8, the Permittee shall maintain records of visible emission notations of the **charge handling operation and the** stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes once per shift.

D.2.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.~~1~~**2** and D.2.~~3~~**4**(d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.3.9 Visible Emissions Notations

(a) Visible emission notations of the **charge handling operation and the** stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.13 Record Keeping Requirements

(a) To document compliance with Conditions D.3.~~1~~**2** and D.3.~~4~~**5**, the Permittee shall maintain the following records:

(1) The metal throughput to the ~~charge handling,~~ melting, pouring, cooling, shakeout, and grinding/cleaning operations for each month.

(2) The sand **and waste sand** throughput to the sand **and waste sand** handling operation for each month.

~~(3) The waste sand throughput to the waste sand handling operation for each month.~~

Records of metal throughput to the pouring and shakeout operations shall also be used to document compliance with condition D.3.~~3~~**4**(c).

(b) To document compliance with Condition D.3.9, the Permittee shall maintain records of visible emission notations of the **charge handling operation and the** stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes once per shift.

D.3.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.~~1~~**2**~~,~~ **and** D.3.~~3~~**4**(c)~~, and D.3.4~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.
The Potential to Emit After Issuance table now reads as follows:

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	HAPs
GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988								
Coremaking (P4, P5, P6)(1)	3.58	3.58	--	<25.0	--	--	1.84	1.92
Coremaking (P7)(1)			--	13.32	--	--	0.98	1.01
Charge Handling (P1, P2, P3)(2)	1.05	1.05	--	--	--	--	--	--

Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	HAPs
Melting System - Electric Induction Furnace (P8)[2]	9.00	9.00	--	--	--	--	0.012	0.02
Two (2) electric holding furnaces (P9)*	–	--	--	--	--	--	--	--
Six (6) ladle heaters (P10)	0.11	0.46	0.04	0.33	5.08	6.04	0.11	0.11
Inoculation (P11)[2][3]	9.00	9.00	–	0.09	--	--	--	--
Pouring (P12 and P13)[2][3][8]	7.65	7.65	0.37	2.59	–	0.19	<0.01	<0.01
Casting Cooling (P14 and P15)[2]	7.65	7.65	--	--	--	--	<0.01	<0.01
Shakeout (P16)[2][3]	9.00	9.00	--	22.21	--	--	<0.01	<0.01
Conveying System (P17 - P22)[2]	7.20	7.20	--	--	–	–	–	–
Shotblast Operations (P23 - P28)[2]	9.00	9.00	--	--	--	--	0.07	0.07
Grinding (P29 - P31)[2]	9.00	9.00	--	--	--	--	0.07	0.07
Sand Handling (P32 - P39)[4]	19.44	19.44	--	–	–	–	–	–
Insignificant Activities (P40, P41, P47 - P52, P53, P54, P58, P59)	6.50	6.55	0.01	0.05	0.77	0.92	0.02	0.02
Subtotal	<100.00	98.58	0.42	63.49	5.85	7.15	2.82 (amine gas)	3.22
GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997								
Charge Handling (1000A)	0.53	0.53	--	--	--	--	--	--
Melting and Pouring (1000) (Stack ID 6100)[5][6][8]	24.50	24.50	0.37	2.60	--	0.19	0.09	0.14

Mold/Castings Cooling (2000) (Stack IDs 6200A and 6200B)(5)	21.00	21.00	--	--	--	--	<0.01	<0.01
Casting Shakeout (3000) (Stack IDs 6200A and 6200B)(5)(6)	28.00	28.00	--	22.30	--	--	0.01	0.02
Sand & Waste Sand Handling (4000) (Stack IDs 6300 and 6400)(7)	24.30	24.30	--	--	--	--	--	--
Finishing Operations (8000) (Stack ID FFA, FFB, FFC)(5)	0.72	0.72	--	--	--	--	0.02	0.04
Two (2) ladle heaters (6600, 6610)	0.03	0.13	0.01	0.10	1.47	1.75	0.03	0.03
Insignificant Activities (Surface coating (6601))	0.05	0.05	--	0.35	--	--	0.30	0.30
Subtotal	<100.00	99.23	0.38	25.35	1.47	1.94	0.12 (Mg)	0.53
Other Insignificant Activities								
Scrap yard (part of charge handling)	--	--	--	--	--	--	--	--
Total Emissions	197.31	197.81	0.80	88.84	7.32	9.09	2.82 (amine gas)	3.75

(1) Emissions from the core machines P4-P6, constructed in 1988, will be limited to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(2) Emissions are after control where applicable and after a total metal throughput limitation of 90,000 tons per year for the two (2) foundry lines constructed in 1988 to limit PM and PM10 emissions to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.

(3) Inoculation (P11), Pouring (P12, P13) and Shakeout (P16) SO_2, VOC, NOx, and HAP emissions represent emissions after a metal throughput limit of 37,023 tons per year to limit VOC emissions from Inoculation, Pouring and Shakeout to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(4) Emissions are after control and after a mold sand throughput limitation of 777,600 tons per year.

(5) Emissions are after control where applicable and after a metal throughput limitation of 70,000 tons per year for the foundry line constructed in 1997 to limit PM and PM10 emissions to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.

(6) Pouring (1000) and Shakeout (3000) SO_2, VOC, NOx, and HAP emissions represent emissions after a metal throughput limit of 37,164 tons per year to limit VOC emissions from Pouring and Shakeout to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(7) Emissions are after control and after a sand throughput limitation of 490,000 tons per year.

(8) HAP emissions listed under Pouring (P12 and P13) and melting and pouring (1000) include organic HAP emissions from pouring, cooling, and shakeout combined.

* Any emissions from the electric holding furnaces (P9) are accounted for in the emissions from melting in the electric induction furnaces.

Comment #25

Condition D.2.2 and D.3.2, Particulate Matter - The process weight limits are to be based on the total weight of materials used in a process. As such the pouring, cooling, and shakeout process weight rates should be based on the total weight of metal and sand used in these processes and not just on the sand weight. The following tables present what we believe are correctly calculated process weight limits. We would note however, that the limits on PM and PM_{10} in Condition D.2.1 are much more stringent and would be the controlling limits. We have eliminated the emission limits for the charge handling systems consistent with our comments above. Please also note that we have combined the sand and waste sand systems for Plant 2 consistent with the comments above.

Proposed Revisions to Condition D.2.2

Unit	PWR (tons/hr)	Allowable Emissions (lbs/hr)
Melting System (P8) and Holding Furnace (P9)	20	30.51
Inoculation (P11)	20	30.51
Pouring (P12,P13)	**20 metal 150 sand**	**56.76**
Casting Cooling (P14, P15)	**20 metal 150 sand**	**56.76**
Shakeout (P16)	**20 metal 150 sand**	**56.76**
Conveying (P17-P22)	20	30.51
Shotblast Operations (P23-P28)	20	30.51
Grinding (P29 – P31)	20	30.51
Sand Handling	150	55.44

Proposed Revisions to Condition D.3.2

Unit	PWR (tons/hr)	Allowable Emissions (lbs/hr)
Melting and Pouring (1000)	10	19.18
Mold/Casting Cooling (2000)	**10 metal 70 sand**	**49.06**
Shakeout (3000)	**10 metal 70 sand**	**49.06**
Sand Handling Systems (4000)	70	47.77
Grinding/ Cleaning (8000)	5.5	12.85

Response #25

The equipment descriptions in section A.2(a) and the section D.2 for pouring (P12, P13) and casting cooling (P14, P15), have been revised to include the sand throughputs listed above as follows:

(6) One (1) pouring system consisting of two (2) automatic pouring lines, identified as P12 and P13, each with a maximum capacity of 10 tons of metal per hour **and 75 tons of sand per hour**, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;

(7) One (1) casting cooling system, consisting of two (2) identical cooling lines, P14 and P15, each of which includes one (1) cooling conveyor and one (1) cooling tunnel, each line with a maximum capacity of 10 tons of metal per hour **and 75 tons of sand per hour**, each line utilizing a cartridge collector for particulate control, exhausting to stacks ID Nos. 1A and 1B, respectively;

Condition D.2.2, now re-numbered D.2.3, is revised as follows:

D.2.~~2~~**3** Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the two (2) grey iron foundry lines shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Inoculation (P11)	3A, 3B	20.0	30.51
Pouring (P12 and P13)*****	2	~~20.0~~ **170.0**	~~30.51~~ **56.76**
Casting Cooling (P14 and P15)*****	1A, 1B	~~20.0~~ **170.0**	~~30.51~~ **56.76**
Shakeout (P16)*****	4A, 4B	~~20.0~~ **170.0**	~~30.51~~ **56.76**
Conveying System (P17 - P22)	6A, 6B	20.0	30.51
Shotblast Operations (P23 - P28)	8A, 8B	20.0	30.51
Grinding (P29 - P31)	7, 8A, 8B	20.0	30.51
Sand Handling (P32 - P39)	3A, 3B, 4A, 4B, 5	150.0	55.44

*** Includes metal and sand throughput.**

The pounds per hour limitations were calculated with the following equations:
Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Condition D.3.2, now re-numbered D.3.3, is revised as follows:

D.3.~~2~~**3** Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the

allowable particulate emission rates from the one (1) grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (1000A)	NA	10.0	19.18
Melting & Pouring (1000)	6100	10.0	19.18
Mold/Casting Cooling (2000)*****	6200A	~~10.0~~ **80.0**	~~19.18~~ **49.06**
Casting Shakeout (3000)*****	6200B	~~10.0~~ **80.0**	~~19.18~~ **49.06**
Sand **& Waste Sand** Handling (4000)	6300	70.0	47.77
~~Waste Sand Handling (7000)~~	~~6400~~	~~1.9~~	~~6.30~~
Grinding/Cleaning (8000)	FFA, FFB, FFC	5.50	12.85

*** Includes metal and sand throughput.**

The pounds per hour limitations were calculated with the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

Comment #26

Conditions D.2.3 and D.3.3, Volatile Organic Compounds (VOC) - These conditions set limits on the VOC emission rate from inoculation, pouring and shakeout operations (based on AP-42 emission factors) and also establish a limit on the amount of tons melted per year. These limits in combination restrict VOC emissions to less than 25 tons/year, and as such the requirements of 326 IAC 8-1-6 and the PSD requirements of 326 IAC 2-2 do not apply. We do not believe that the AP-42 emission factors are accurate, nor do they correctly identify the appropriate processes that may emit VOCs. We would agree that VOC's are emitted, but believe the appropriate processes are from the pouring, cooling and shakeout processes at each of the two plants. Given the nature of the casting processes and the specific design of the ventilation systems it is not possible to predict a specific limit for a specific portion of the process. As such we would request that this condition be modified as follows:

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) VOC emissions from the pouring, cooling and shakeout processes (P12, P13, P14, P15,

P16) shall not exceed 0.83 pounds of VOCs per ton of metal poured.

(b) The total amount of metal poured at plant 1 shall not exceed 60,000 tons twelve (12) consecutive month period with compliance determined at the end of each month.

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) VOC emissions from the pouring, cooling and shakeout processes (#1000, #2000 and #3000) shall not exceed 0.83 pounds of VOCs per ton of metal poured.

(b) The total amount of metal poured at plant 2 shall not exceed 60,000 tons twelve (12) consecutive month period with compliance determined at the end of each month.

We are also planning to conduct tests in the near future to verify the emission factor for VOC emissions from our process. Specifically we would propose to test the pouring, cooling and shakeout processes at Plant 2. Plant 2 provides fewer individual emission points that would need to be tested. We believe that the results from plant two would be representative of both plants, since our melting and molding operations for the two plants are essentially identical. As such, we would request that condition D.2.6 (b) be deleted and the results from the testing at plant 2 under proposed condition D.3.7(b) be considered adequate for the purposes of verifying the VOC emission factor. If possible we would like to conduct the VOC emissions test prior to the issuance of the final Part 70 permit, and based on the results of the tests propose appropriate adjustments to the VOC emission limits and throughput limits associated with these conditions.

Response #26

Due to the length of time it requires to submit a test protocol to the OAQ, complete the stack testing, submit the results and have them reviewed and approved by the OAQ, issuance of the Part 70 permit cannot be further postponed until the test results are approved. The OAQ also has to determine if testing on only one plant would be representative of both plants. Additional testing could be required on plant 1 (the older foundry lines) which would further lengthen the testing period. Therefore, conditions D.2.3, now re-numbered D.2.4, and D.3.3, now re-numbered D.3.4, will remain unchanged and will continue to include the AP-42 emission factors for VOC emissions from the pouring, cooling and shakeout operations. After the Part 70 permit is issued, the source has the option of applying to the OAQ for a permit modification to revise these conditions if valid stack testing does indicate a different VOC emission rate from these operations.

Comment #27

Condition D.3.4, Hazardous Air Pollutants - This condition sets emission limits and an overall melting and pouring limit for various processes in order to limit emissions of manganese to less than 10 tons/year. The basis for these limits is unclear, and we believe that these limits are unnecessary. We would agree that emissions of manganese may occur from the melting operations, but we would not expect Manganese emissions from the other processes listed. The limits in Condition D.3.1 restrict PM emissions from the melting and pouring operations to approximately 17 tons/year. The Material Safety data Sheet for Gray Iron indicates that Manganese only comprises 0.2 to 1.1% of gray iron as such, the PM emission limit would effectively limit Manganese emissions to no more than 0.19 tons/year, far below the 10 ton/year threshold for 326 IAC 2-4.1-1. We believe that this is even a conservative assessment given the very high vaporization temperature for Manganese. We would also note that the collective limits found in condition D.3.4 would actually limit Manganese emissions to approximately 3.0 tons/year.

Response #27

On December 23, 2002, the U.S. EPA proposed a National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries. A background information document (BID) for the development of this MACT standard was developed by the US EPA Office of Air Quality Planning and Standards in December, 2001. The document contains HAP emission factors for manganese, lead, and total metal HAPs for melting, pouring, cooling, shakeout, shotblasting, and grinding. These emission factors have been incorporated into the HAP emission calculation spreadsheets for the foundry. From the revised calculations, potential HAP emissions are shown to be less than 10 tons per year for any single HAP and less than 25 tons per year for total HAPs. However, as the December 23, 2002 Federal Register notice for the NESHAP states, because of insufficient available data on HAP emissions from foundries, the HAP emission factors may not reflect HAP emissions accurately. Therefore, the limits on manganese emissions will remain in the Part 70 permit to ensure that the requirements of 326 IAC 2-4.1-1 do not apply to the foundry line constructed in 1997.

Since the BID shows no evidence of significant HAP emissions from charge handling and inoculation, no HAP emissions were attributed to those operations. Also, the emission limits for manganese were revised so that they are now expressed as pound per hour limits and to allow the source to emit up to 9.9 tons per year. Condition D.3.4, now re-numbered D.3.5, is revised as follows:

D.3.~~4~~**5** Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

Emissions of manganese ~~and the throughput of metal~~ for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	~~Material~~	Manganese Emission Limitation (~~lb/ton material~~ **lb/hr**)	~~Throughput Limit (tons per 12 consecutive month period)~~
~~Charge Handling (1000A)~~	~~Metal~~	~~0.02~~	~~70,000~~
Melting & Pouring (1000)	~~Metal~~	~~0.02~~ **1.92**	~~70,000~~
Mold/Casting Cooling (2000)	~~Metal~~	~~0.02~~ **0.01**	~~70,000~~
Shakeout (3000)	~~Metal~~	~~0.02~~ **0.28**	~~70,000~~
Grinding/Cleaning (8000)	~~Metal~~	~~0.01~~ **0.06**	~~N/A (Maximum throughput is 5.5 tons/hr)~~

~~Compliance with the throughput limits shall be determined at the end of each month.~~

These emission limits ~~and the throughput limits~~ yield manganese emissions from the one (1) grey iron foundry line constructed in 1997 that are less than 10 tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) are not applicable.

Comment #28

Conditions D.2.4, D.3.5 and D.4.1, Particulate Matter - These conditions establish PM emission limits for the ladle heaters, and the two small boilers. The ladle heaters are source of direct heating and as such are not subject to 326 IAC 6-2. Therefore conditions D.2.4 and D.3.5 should be deleted. Also, the emission

limit for the two small boilers should be based on the total value for Q of 2.1 MMBtu/hour rather than 19.9 MMBtu/hr.

Response #28

The ladle heaters are not indirect heating units and are therefore not subject to the requirements of 326 IAC 6-2-4. This was erroneously applied to these units. Therefore, conditions D.2.4 and D.3.5 have been removed from the Part 70 permit.

~~D.2.4 Particulate Matter (PM) [326 IAC 6-2]~~

~~Pursuant to PC (70) 1725, issued December 6, 1988, OP-70-03-93-0068, issued April 3, 1989, and 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each of the ladle heaters shall be limited to 0.50 pound per MMBtu heat input. This is equivalent to 1.15 pounds of PM per hour from each ladle heater. This emission limit was calculated using the following equation:~~

~~$Pt = \frac{1.09}{Q^{0.26}}$~~

~~where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input~~
~~Q = Total source maximum operating capacity rating in MMBtu/hr heat input.~~
~~= 19.9 MMBtu/hr~~

~~D.3.5 Particulate Matter (PM) [326 IAC 6-2]~~

~~Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each of the ladle heaters shall be limited to 0.50 pound per MMBtu heat input. This is equivalent to 1.0 pound of PM per hour from each ladle heater. This emission limit was calculated using the following equation:~~

~~$Pt = \frac{1.09}{Q^{0.26}}$~~

~~where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input~~
~~Q = Total source maximum operating capacity rating in MMBtu/hr heat input.~~
~~= 19.9 MMBtu/hr~~

Condition D.4.1 is revised so that the allowable emissions are based on a value of 2.1 MMBtu per hour (0.9 +1.2 MMBtu/hr) for Q. Also, since it is not necessary to supersede a condition whose authority comes from the State Implementation Plan (SIP), it is not necessary to cite the previous permits that included the particulate matter emission limit pursuant to 326 IAC 6-2-4. Condition D.4.1 is revised as follows:

D.4.1 Particulate Matter (PM) [326 IAC 6-2]

Pursuant to ~~PC (70) 1725, issued December 6, 1988, OP-70-03-93-0068, issued April 3, 1989, and~~ 326 IAC 6-2-4**(a)** (Particulate Emission Limitations for Sources of Indirect Heating), **for Q less than 10 MMBtu per hour, the pounds of PM emitted per million Btu heat input shall not exceed 0.6 pound per MMBtu. Therefore,** ~~particulate~~ **PM** emissions from each of the boilers, identified as P40 and P41, shall ~~be limited to 0.50~~ **not exceed 0.6** pound per MMBtu heat input. ~~This is equivalent to 0.45 and 0.60 pound of PM per hour from each boiler, respectively. This emission limit was calculated using the following equation:~~

~~$Pt = \frac{1.09}{Q^{0.26}}$~~

~~where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input~~
~~Q = Total source maximum operating capacity rating in MMBtu/hr heat input.~~
~~= 19.9 MMBtu/hr~~

Comment #29

Regarding the Insignificant Activities, we request that the following insignificant activity be added: *Unvented trim press operations.* This activity should not be regulated by 326 IAC 6-3-2 because it does not produce particulate emissions. A trim press operation could be described as "pinching" or "cleaving" protruding metal from castings.

Response #29

This operation is already listed under the Insignificant Activities section of the Technical Support Document. Since the trim press operation meets the definition of a trivial activity under 326 IAC 2-7-1(40)(P)(vi), it is not subject to the requirements of 326 IAC 6-3-2. Therefore, the trim press operation was not previously listed in section A.3 of the Part 70 permit because there are no applicable requirements for that operation. However, at the source's request this operation is added to section A.3. With the addition of this operation to section A.3, not all of the insignificant activities listed are specifically regulated. Therefore, all of the insignificant activities at this source have been added to section A.3 and the statement which says they are specifically regulated has been deleted as follows:

A.3 ~~Specifically Regulated~~ Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities ~~which are specifically regulated~~, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;

(1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;

(b) Combustion source flame safety purging on startup;

(c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(d) Refractory storage not requiring air pollution control equipment;

(e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;

~~(b)~~**(f)** Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months); [326 IAC 8-3-2]

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) Paved and unpaved roads and parking lots with public access;

~~(c)~~**(i)** Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations; [326 IAC 6-3-2]

(j) Filter or coalescer media change out;

~~(d)~~**(k)** Other activities or categories not previously identified:

(1) Six (6) scrap bays, identified as P47 through P52, each with PM emissions of approximately 0.16 pound per hour; [326 IAC 6-3-2]

(2) Two (2) sand towers, identified as P55 and P56, for the grey iron foundry line constructed in 1988 (emissions are included in sand handling calculations);

(3) Maintenance shop operations, identified as P58 and P59, each with PM emissions of approximately 0.1 pounds per hour; [326 IAC 6-3-2]

(4) Two (2) collector penthouses, identified as P53 and P54, each with PM emissions of approximately 0.16 pounds per hour; [326 IAC 6-3-2]

(5) One (1) material separator (cartridge filter fallout collection) with PM emissions approximately 0.6 pounds per hour; [326 IAC 6-3-2]

(6) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour, utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour; [326 IAC 6-3-2]

(7) One (1) scrap yard.

(l) Three (3) sand towers for the grey iron foundry line constructed in 1997, which house the sand silos, bond silos, sand mullers, and sand conveyors used with the sand handling operations; and

(m) Unvented trim press operations for pinching or cleaving protruding metal from castings with no emissions.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. On March 3, 2003, U.S.EPA published a notice for "Conditional Approval of Implementation Plan: Indiana" in the Federal Register / Vol. 68, No.41 at pages 9892 through 9895. This notice grants conditional approval to the PSD State Implementation Plan (SIP) under provisions of 40 CFR §51.166 and 40 CFR §52.770 while superceding the delegated PSD SIP authority under 40 CFR §52.793. The effective date for these provisions is April 2, 2003. Therefore, the PSD permits will be issued under the authority of 326 IAC 2-2 and will no longer be issued under the provision of 40 CFR 52.21 and 40 CFR 124. Because of this, conditions D.1.2, D.1.3, D.2.1 (now D.2.2), and D.3.1 (now D.3.2), which contain limits that render the requirements of 326 IAC 2-2 (PSD) not applicable, have been revised based on the PSD SIP approval status (where language deleted is shown with strikeout):

D.1.2 PSD Minor Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

Total PM and PM10 emissions from the coremaking operation shall each not exceed 0.41 pound per ton of core sand throughput. This is equivalent to an emission limit of 0.82 pound per hour of PM and PM10 each based on a maximum throughput of 2 tons per hour of core sand.

This emission limit, in addition to the emission limits listed in condition**s D.2.1 and** D.2.~~1~~**2**, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ are not applicable.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-2]~~[40 CFR 52.21]~~

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 263,150 pounds of resin per 12 consecutive month period. The total amine gas catalyst usage for core machines P4, P5, and P6 shall not exceed 36,841 pounds of amine gas catalyst per 12 consecutive month period.

(b) The VOC emissions (not including amine gas catalyst emissions) from each of the Isocure cold box core machines P4, P5, and P6 shall not exceed 0.05 pound per pound of resin.

This will limit the total VOC emissions from core machines P4, P5, and P6 to less than 25 tons per year before controls. Therefore, the three (3) isocure cold box core machines are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Compliance with these limits is also necessary to render the requirements of ~~40 CFR 52.21 and~~ 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) Any change or modification which increases emissions of VOC from core machine P7 to greater than 25 tons per year must be approved by the Office of Air Quality before such change can occur.

The VOC emission limits and usage limits shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.2.2 PSD Minor Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

Emissions of PM and PM10 and the throughput of metal and sand for the two (2) grey iron foundry lines, constructed in 1988, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting System (P8) and Holding Furnaces (P9)	Metal melted	0.20	90,000
Inoculation (P11)	Metal	0.20	90,000
Pouring (P12, P13)	Metal poured	0.17	90,000
Casting Cooling (P14, P15)	Metal	0.17	90,000
Shakeout (P16)	Metal	0.20	90,000
Conveying (P17 - P22)	Metal	0.16	90,000
Shotblast Operations (P23 - P28)	Metal	0.20	90,000
Grinding (P29 - P31)	Metal	0.20	90,000
Sand Handling	Mold Sand	0.05	777,600

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits combined with limited PM and PM10 emissions from the coremaking operation and the charge handling operation yield PM and PM10 emissions from the two (2) grey iron foundry lines constructed in 1988 that are less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ are not applicable. Any emissions from the electric holding furnaces are accounted for in the emissions from melting in the electric induction furnaces.

D.3.2 PSD Minor Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

Emissions of PM and PM10 and the throughput of metal and sand for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting & Pouring (1000)	Metal	0.70	70,000
Mold/Casting Cooling (2000)	Metal	0.60	70,000
Shakeout (3000)	Metal	0.80	70,000
Sand & Waste Sand Handling System (4000)	Mold Sand	0.10	490,000
Grinding/Cleaning (8000)	Metal	0.03	48,180 (Maximum throughput)

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits, combined with limited PM and PM10 emissions from the charge handling operation, yield PM and PM10 emissions from the one (1) grey iron foundry line constructed in 1997 that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) ~~and 40 CFR 52.21~~ are not applicable. Any emissions from the electric holding furnace are accounted for in the emissions from melting in the electric induction furnaces.

2. The following updates have been made to the table of contents of the Part 70 permit in order to be complete, clear, and correct.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]**[326 IAC 2-7-1(22)]**
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] **[326 IAC 2-7-5(15)]**
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] **[326 IAC 2-7-5(15)]**
B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3)and (13)][326 IAC 2-7-6(1)and(6)] **[326 IAC 1-6-3]**

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination **[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

B.19 Permit Revision Under Economic Incentives and Other Programs **[326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]**

C.1 Particulate ~~Matter~~ Emission Limitations For Processes with Process Weight Rates **Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]**

C.12 Monitoring Methods [326 IAC 3]**[40 CFR 60][40 CFR 63]**

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] **[326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports **[326 IAC 2-7-5] [326 IAC 2-7-6]**

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] **[326 IAC 2-7-6]**

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] **[326 IAC 2-6]**

3. The duty to supplement an application is not an ongoing requirement after the permit is issued; therefore, (a) has been removed from condition B.7, Duty to Supplement and Provide Information.

B.7 Duty to ~~Supplement and~~ Provide Information ~~[326 IAC 2-7-4(b)]~~ [326 IAC 2-7-5(6)(E)] ~~[326 IAC 2-7-6(6)]~~

~~(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:~~

~~Indiana Department of Environmental Management~~
~~Permits Branch, Office of Air Quality~~
~~100 North Senate Avenue, P. O. Box 6015~~
~~Indianapolis, Indiana 46206-6015~~

~~The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(b)~~**(a)** The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

~~(c)~~**(b)** For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

4. Condition B.11 (b) was revised to clarify that required record keeping needs to be implemented as well as the rest of the plan to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit. Also, (c) has been revised to clarify that OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance is the primary contributor to an exceedance of any limitation on emissions or potential to emit . The requirements to keep records of preventive maintenance in (d) has been moved to

Section D. Because the general record keeping requirements (i.e. retained for 5 years) are in Section C, it is not necessary to include them in this condition or in the section D condition. At some sources, an OMM Plan is required. Instead of having two separate plans, the OMM Plan may satisfy the PMP requirements, so (d) has been added to this condition.

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(b) The Permittee shall implement the PMPs, **including any required record keeping**, as necessary to ensure that failure to implement a PMP does not cause or contribute to ~~a violation~~ **an exceedance** of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or ~~contributes to any violation~~ **is the primary contributor to an exceedance of any limitation on emissions or potential to emit**. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

~~(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.~~

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

5. In order to clarify that an amendment or modification will not be required for the addition, operation or removal of a nonroad engine, paragraph (d) has been added to condition B.18 Permit Amendment or Modification.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

6. For clarity, additional rule cites have been added to condition B.22, Inspection and Entry.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]**[IC 13-30-3-1][IC 13-17-3-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have** ~~Have~~ access to and copy any records that must be kept under the conditions of this permit;

(c) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect** ~~Inspect~~ any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample** ~~Sample~~ or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) **As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize** ~~Utilize~~ any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

7. The following change has been made to condition C.1, Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) Pounds Per Hour:

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, ~~the allowable~~ particulate matter emissions ~~rate~~ from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), ~~the allowable~~ particulate emissions ~~rate~~ from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

8. Condition C.8, Asbestos Abatement Projects, has been revised to clarify that the requirement to have an Indiana Accredited Asbestos inspector is not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases

by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

~~(f)~~**(g)** Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. ~~The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.~~ **The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.**

9. Condition C.15, Risk Management Plan, has been revised so that it is more straightforward, and the condition requires the source to comply with the applicable requirements of 40 CFR 68 if a regulated substance is present at a source in more than a threshold quantity.

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68~~.215~~]

If a regulated substance, ~~subject to~~ **as defined in** 40 CFR 68, is present at a source in more than a threshold quantity, ~~40 CFR 68 is an applicable requirement and the Permittee shall submit:~~ **the source must comply with the applicable requirements of 40 CFR 68.**

~~(a) A compliance schedule for meeting the requirements of 40 CFR 68; or~~

~~(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP);~~

~~All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

10. Failure to take reasonable response steps shall be considered a deviation from the permit; therefore, paragraph (b)(4) of condition C.16 was revised. Language was added to (e) to clarify that the records that need to be kept are those instances when, in accordance with Section D, response steps are taken.

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall ~~constitute a violation of~~ **be considered a deviation from** the permit.

(e) The Permittee shall record all instances when**, in accordance with Section D,** response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

11. In order to clarify which documents need to be certified by the responsible official, the following update has been made:

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The **response action** documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

12. Condition C.18 (a), Emission Statement, has been updated to include the specific rule cite that defines the regulated pollutants being referred to in this condition.

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of ~~other~~ regulated pollutants ~~(~~as defined by 326 IAC 2-7-1**(32)**~~)~~ **("Regulated pollutant which is used only for purposes of Section 19 of this rule")** from the source, for purposes of Part 70 fee assessment.

13. It is acceptable for records to be electronically accessible instead of being physically present at a source; therefore, the following update has been made:

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required **monitoring** data, reports and support information **required by this permit** shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be ~~kept~~ **physically present or electronically accessible** at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

14. Condition D.1.2 has been further revised as follows:

D.1.2 PSD Minor Limit [326 IAC 2-2]

Total PM and PM10 emissions from the coremaking operation shall each not exceed 0.41 pound per ton of core sand throughput **and 0.82 pound per hour**. ~~This is equivalent to an emission limit of 0.82 pound per hour of PM and PM10 each based on a maximum throughput of 2 tons per hour of core sand.~~

This emission limit, in addition to the emission limits listed in conditions D.2.1 and D.2.2, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

15. A requirement has been added to conditions D.1.10, D.2.12, and D.3.13 to require records of inspections prescribed by the Preventive Maintenance Plan to be maintained since the requirement has been removed from condition B.11. Also, language was added to these conditions to clarify that the Permittee has 30 days to demonstrate compliance with the limit.

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.3 (a), the Permittee shall maintain records of the total amine gas catalyst and resin usages for the isocure cold box core machines P4, P5, and P6 each month. **Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**

(b) To document compliance with Condition D.1.3 (b) and (c), the Permittee shall maintain records of the type of binders used for all of the Isocure cold box core machines each month in order to demonstrate that the type of binder used has not changed. INTAT Precision, Inc. is permitted to use the following binders: Isocure Part I polymeric resin and Isocure Part II polymeric MDI type diisocyanate.

(c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the coremaking operation baghouse stack exhaust.

(d) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.

(f) To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

~~(f)~~**(g)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.12 Record Keeping Requirements

(a) To document compliance with Condition D.2.2, the Permittee shall maintain the following records:

(1) The metal throughput to the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, and grinding operations for each month.

(2) The sand throughput to the sand handling operation for each month.

Records of metal throughput to the inoculation, pouring, cooling, and shakeout operations shall also be used to document compliance with condition D.2.4(d). **Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**

(b) To document compliance with Condition D.2.8, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes once per shift.

(c) To document compliance with Condition D.2.9, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(d) To document compliance with Condition D.2.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10.

(e) To document compliance with Condition D.2.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

~~(e)~~**(f)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.13 Record Keeping Requirements

(a) To document compliance with Conditions D.3.2 and D.3.5, the Permittee shall maintain the following records:

(1) The metal throughput to the melting, pouring, cooling, shakeout, and grinding/cleaning operations for each month.

(2) The sand and waste sand throughput to the sand and waste sand handling operation for each month.

Records of metal throughput to the pouring and shakeout operations shall also be used to document compliance with condition D.3.4(c). **Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**

(b) To document compliance with Condition D.3.9, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes once per shift.

(c) To document compliance with Condition D.3.10, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(d) To document compliance with Condition D.3.11, the Permittee shall maintain records of the results of the inspections required under Condition D.3.11.

(e) To document compliance with Condition D.3.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

~~(e)~~**(f)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

16. Conditions D.1.4, D.1.5, D.1.6, D.1.9, D.1.10, D.2.7, D.2.11, and D.3.8 have been revised to reflect the correct references to the control devices used at this source as follows:

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and the ~~baghouse~~ **cartridge collector** for particulate control.

D.1.5 Particulate Control

In order to comply with conditions D.1.1 and D.1.2, the ~~baghouse~~ **cartridge collector** for particulate control shall be in operation and control emissions from the coremaking process at all times that the coremaking process is in operation.

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the ~~baghouse~~ **cartridge collector** controlling the coremaking operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.9 Broken or Failed ~~Bag~~ **Cartridge Collector** Detection

In the event that ~~bag~~ **cartridge collector** failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment ~~baghouses~~ **cartridge collectors**, if failure is indicated by a significant drop in the ~~baghouse's~~ **cartridge collector's** pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if ~~bag~~ **cartridge** failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.3 (a), the Permittee shall maintain records of the total amine gas catalyst and resin usages for the isocure cold box core machines P4, P5, and P6 each month. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(b) To document compliance with Condition D.1.3 (b) and (d), the Permittee shall maintain records of the type of binders used for all of the Isocure cold box core machines each month in order to demonstrate that the type of binder used has not changed. INTAT Precision, Inc. is permitted to use the following binders: Isocure Part I polymeric resin and Isocure Part II polymeric MDI type diisocyanate.

(c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the coremaking operation ~~baghouse~~ **cartridge collector** stack exhaust.

(d) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.

(f) To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Particulate Control

In order to comply with conditions D.2.2 and D.2.3, the ~~baghouses~~ **cartridge collectors** for particulate control shall be in operation and control emissions from the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes at all times that these facilities are in operation.

D.2.11 Broken or Failed ~~Bag~~ **Cartridge Collector** Detection

In the event that ~~bag~~ **cartridge collector** failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment ~~baghouses~~ **cartridge collectors**, if failure is indicated by a significant drop in the ~~baghouse's~~ **cartridge collector's** pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if ~~bag~~ **cartridge** failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.3.8 Particulate Control

Pursuant to CP-139-8845-00011, issued on December 10, 1997, and in order to comply with conditions D.3.2 and D.3.3, the baghouses **and fabric filters** for particulate and metallic HAP control shall be in operation and control emissions from the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes at all times that these facilities are in operation.

17. The quarterly inspections should not occur in consecutive months. Therefore, condition D.3.11 has been revised as follows:

D.3.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. **Inspections required by this condition shall not be performed in consecutive months.** All defective bags shall be replaced.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	INTAT Precision Inc.
Source Location:	2148 State Road 3 North, Rushville, Indiana 46173
County:	Rush
SIC Code:	3321
Operation Permit No.:	T139-7531-00011
Permit Reviewer:	TE/EVP

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from INTAT Precision Inc. relating to the operation of a grey iron foundry.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Two (2) grey iron foundry lines, constructed in 1988, consisting of the following:

(1) One (1) coremaking system, including three (3) core sand bins and four (4) isocure core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988 and P7 constructed in 1994, each with a maximum capacity of processing 0.5 ton of cores per hour, 0.008 ton of resin per hour and 0.0014 ton of TEA per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and a scrubber for triethylamine (TEA) control, exhausting through stack ID Nos. 10A and 10B. The source voluntarily utilizes a TEA scrubber with 90% control efficiency;

(2) One (1) charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

(3) One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.

(4) One (1) holding system consisting of the following equipment:

(A) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(B) Six (6) ladle heaters, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, with a maximum throughput capacity of 50 tons of metal per hour, exhausting to stack ID Nos. 12A, 12B and 12C;

(5) One (1) inoculation system consisting of two (2) inoculation ladles, identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(6) One (1) pouring system consisting of two (2) pouring units, identified as P12 and P13, each with a maximum capacity of 10 tons of metal per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;

(7) One (1) casting cooling system, consisting of two (2) identical cooling lines, P14 and P15, each of which includes one (1) cooling conveyor and one (1) cooling tunnel, each line with a maximum capacity of 10 tons metal per hour, each line utilizing a cartridge collector for particulate control, exhausting to stacks ID Nos. 1A and 1B, respectively;

(8) One (1) shakeout system (P16) consisting of two (2) shakeout drums, each with a maximum capacity of 10 tons metal per hour and 75 tons of sand per hour, each utilizing a cartridge collector for particulate control, exhausting to stack ID Nos. 4A and 4B, respectively;

(9) One (1) conveying system, consisting of a casting dump (P17), two (2) casting conveyors (P18), two (2) desprue conveyors (P19), two (2) sprue chutes and bins (P20), casting discharge (P21), and a rejected casting dump (P22), with each of P17 through P22 having a maximum capacity of 10 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 6A and 6B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(10) One (1) shotblasting system, consisting of a casting dump and spinblast feeder (P23), one (1) casting dump (P25), one (1) barrelblast feeder (P26), four (4) barrelblast cabinets (P27), and two (2) barrelblast discharges (P28), with P23 having a maximum capacity of 20 tons metal per hour and P25 through P28 having a maximum combined capacity of 20 tons of metal per hour, utilizing three (3) cartridge collectors for particulate control, exhausting to stack ID Nos. 7, 8A and 8B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;

(11) One (1) grinding system, consisting of six (6) single-wheel grinders (P29), and eleven (11) downdraft benches (P31), with a maximum combined capacity of 20 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 8A and 8B; and

(12) Two (2) sand handling systems, consisting of nine (9) sand bins (P32), two (2) sand elevators (P33), two (2) sand mullers (P34), two (2) sand aerators (P35), two (2) sand coolers (P36), two (2) magnetic separators (P37), one (1) reclaim sand mill and screen (P38), and sand conveyors (P39), each with a maximum capacity of 75 tons of sand per hour, utilizing five (5) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A, 3B, 4A, 4B, and 5.

(b) One (1) grey iron foundry line, constructed in 1997, consisting of the following:

(1) One (1) charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;

(2) One (1) melting and pouring system, identified as ID # 1000, with a maximum capacity of 10 tons of metal per hour, utilizing a baghouse (ID # BH6100) for particulate control, exhausting to stack ID # 6100, consisting of the following equipment:

(A) Two (2) electric induction furnaces, each with a maximum capacity of 10 tons of metal per hour;
(B) One (1) electric holding furnace;
(C) Two (2) natural gas-fired ladle heaters, identified as ID # 6600 and 6610, each with a maximum heat input rate of 2 MMBtu per hour;

Note: The maximum throughput of metal for the melting and pouring system is limited to 10 tons per hour by the maximum throughput from the charge handling system of 10 tons of metal per hour and the power control systems at the plant.

(3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing two (2) baghouses (ID # BH6200A and BH6200B) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing two (2) baghouses (ID # BH6200A and BH6200B) for particulate control, exhausting to stack ID #s 6200A and 6200B;

(5) One (1) sand handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing a baghouse (BH6300) for particulate control, exhausting to stack ID # 6300;

(6) One (1) waste sand handling system, identified as ID # 7000, with a maximum capacity of 1.9 tons of sand per hour, utilizing a baghouse (BH6400) for particulate control, exhausting to stack ID # 6400;

(7) One (1) finishing operation, identified as ID # 8000, with a maximum capacity of 5.5 tons of metal per hour, consisting of trim presses, uncontrolled, and six (6) bench grinders, utilizing fabric filters (FFA, FFB, and FFC) for control.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

There are no new emission units during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;

(1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;

(b) Combustion source flame safety purging on startup;

(c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(d) Refractory storage not requiring air pollution control equipment;

(e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;

(f) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months);

(g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(h) Paved and unpaved roads and parking lots with public access;

(i) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations;

(j) Filter or coalescer media change out;

(k) Other activities or categories not previously identified:
(1) Six (6) scrap bays, identified as P47 through P52, each with PM emissions of approximately 0.16 pound per hour;
(2) Two (2) sand towers, identified as P55 and P56, for the grey iron foundry line constructed in 1988 (emissions are included in sand handling calculations);
(3) Maintenance shop operations, identified as P58 and P59, each with PM emissions of approximately 0.1 pounds per hour;
(4) Two (2) collector penthouses, identified as P53 and P54, each with PM emissions of approximately 0.16 pounds per hour;
(5) One (1) material separator (cartridge filter fallout collection) with PM emissions approximately 0.6 pounds per hour;
(6) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour,

utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour; and

(7) One (1) scrap yard.

(l) Three (3) sand towers for the grey iron foundry line constructed in 1997, which house the sand silos, bond silos, sand mullers, and sand conveyors used with the sand handling operations; and

(m) Unvented trim press operations for pinching or cleaving protruding metal from castings with no emissions.

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

(a) CP-PC (70) 1725, issued on December 6, 1988;

(b) OP-70-03-93-0061, OP-70-03-93-0063, OP-70-03-93-0064, OP-70-03-93-0065, OP-70-03-93-0066, OP-70-03-93-0067, OP-70-03-93-0068, issued on April 3, 1989;

(c) OP-70-03-93-0062, issued on April 4, 1989;

(d) Registered Construction and Operating Status Permit No. 139-2114-00011, issued September 20, 1991;

(e) CP-139-2562-00011, issued on November 25, 1992;

(f) Exempt Construction and Operating Permit Status No. 139-3368-00011, issued on November 24, 1993;

(g) CP-139-2950-00011, issued on January 25, 1994;

(h) Exempt Construction and Operating Permit Status No. 139-3999-00014, issued on August 30, 1994;

(i) Registered Construction and Operating Status No. 139-5817-00011, issued on May 21, 1996;

(j) CP-139-8845-00011, issued on December 10, 1997; and

(k) Administrative Amendment AA-139-12156-00011, issued July 20, 2000.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 permit:

(a) CP-PC (70) 1725, issued on December 6, 1988;
OP-70-03-93-0061, OP-70-03-93-0063, OP-70-03-93-0064, OP-70-03-93-0065, OP-70-03-93-0066, OP-70-03-93-0067, and OP-70-03-93-0068, issued on April 3, 1989;
OP-70-03-93-0062, issued on April 4, 1989;

Condition 1 of CP-PC (70) 1725 and condition 4 of OP-70-03-93-0061:

That particulate matter emissions from the 2500-cfm wet scrubber controlling the Isocure core machine shall be limited to 0.02 grains per cubic foot of exhaust gas.

Condition 2 of CP-PC (70) 1725, condition 5 of OP-70-03-93-0061, and condition 4 of OP-70-03-93-0062, OP-70-03-93-0063, OP-70-03-93-0064, OP-70-03-93-0065, OP-70-03-93-0066, and OP-70-03-93-0067:

That particulate matter emissions from all the cartridge-type dust collectors shall be limited to 0.0004 grains per cubic foot of exhaust gas.

Reason not incorporated: PM and PM10 limits to render the requirements of 326 IAC 2-2 (PSD) not applicable for all PM and PM10 emission units in the two (2) grey iron foundry lines constructed in 1988 were re-calculated in pounds of PM and PM10 per ton of metal or sand throughput to more accurately reflect the allowable emissions. Therefore, the limits in the above referenced conditions are no longer necessary.

(b) CP-139-2562-00011, issued on November 25, 1992;

Condition 5:

That, pursuant to Construction Permit PC (70) 1725, Operation Condition No. 2, particulate matter emissions from all cartridge-type dust collectors shall be limited to 0.0004 grains per cubic foot of exhaust gas. This shall satisfy 326 IAC 6-3 (Particulate Emissions From Process Operations).

Reason not incorporated: PM and PM10 limits to render the requirements of 326 IAC 2-2 (PSD) not applicable for all PM and PM10 emission units in the two (2) grey iron foundry lines constructed in 1988 were re-calculated in pounds of PM and PM10 per ton of metal or sand throughput to more accurately reflect the allowable emissions. Therefore, the limit in the above referenced condition is no longer necessary. Also, the applicable particulate emission limitations pursuant to 326 IAC 6-3-2 have been included in the Part 70 permit.

Condition 7:

That, resulting from the installation of this third 50 ton electric induction furnace, overall throughput capacity for the plant shall not increase from the original permitted throughput rate of 136,656 tons per twelve month period.

Reason not incorporated: Controlled PM and PM10 emissions from the foundry operations were calculated using a revised grain loading for each of the cartridge collectors in the two (2) grey iron foundry lines constructed in 1988 of 0.007 gr/dscf provided by the source. Since the controlled emissions were greater than the PSD applicability threshold of 100 tons per year, the source has agreed to take a metal throughput limit of 87,295 tons per twelve consecutive month period for the two (2) grey iron foundry lines constructed in 1988 to limit PM and PM10 emissions to less than 100 tons per year so that the requirements of 326 IAC 2-2 (PSD) are not applicable. Therefore, the above condition is no longer necessary.

(c) CP-139-2950-00011, issued on January 25, 1994;

Condition 4:

That the melt rate for the furnaces shall be limited to 20.0 tons of metal per hour.

Condition 5:

That the production rate shall be limited to 125,520 tons of metal per 12 consecutive months based on a twelve month average rolled on a monthly basis. During the first 12 months of operation, the total average tons of metal per month shall not exceed 10,460 tons. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply. This is due to the VOC emissions. Both conditions 4 and 5 make PSD not applicable.

Reason not incorporated: Controlled PM and PM10 emissions from the foundry operations were calculated using a revised grain loading for each of the cartridge collectors in the two (2) grey iron foundry lines constructed in 1988 of 0.007 gr/dscf provided by the source. Since the controlled emissions were greater than the PSD applicability threshold of 100 tons per year, the source has agreed to take a metal throughput limit of 87,295 tons per twelve consecutive month period for the two (2) grey iron foundry lines constructed in 1988 to limit PM, PM10, and VOC emissions to less than 100 tons per year so that the requirements of 326 IAC 2-2 (PSD) are not applicable. The source has also agreed to further limit the metal throughput to the inoculation, pouring, and shakeout operations to 37,023 tons per twelve consecutive month period to limit VOC emissions from these operations to less than 25 tons per year to render 326 IAC 8-1-6 (BACT) not applicable. Therefore, the above conditions are no longer necessary.

(d) CP-139-8845-00011, issued on December 10, 1997;

Condition 9:

That the total metal melt rate through the two (2) electric induction furnaces shall be limited to 70,000 tons per 12 consecutive month period rolled on a monthly basis. This production limitation is equivalent to PM and PM-10 emissions of 88 tons per 12 consecutive month period for this source modification only. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, shall not apply.

During the first 12 months of operation, the metal melt rate shall be limited such that the total melt rate divided by the 12 months of operation shall not exceed 5,833 tons per month.

Reason not incorporated: The metal throughput limit of 70,000 tons per twelve consecutive month period has been incorporated into the Part 70 permit, however, due to the revised pound per ton PM and PM10 emission limits now included in the permit, the metal throughput limitation is now equivalent to 99.9 tons per year of PM and PM10 emissions.

Condition 12:

That baghouses BH6100, BH6200A, BH6200B, BH6300, and BH6400 shall be in operation at all times when the melting and pouring system, mold castings/cooling system, casting shakeout system, sand handling system, and waste sand handling system are in operation, respectively, such that the following allowable particulate matter (PM = PM-10) emission rates are not exceeded:

Process	Allowable Emissions (lb/hr)
Melting and Pouring (ID# 1000)	5.1
Mold Castings Cooling (ID# 2000)	6.5
Casting Shakeout (ID# 3000)	6.1

Sand Handling (ID# 4000)	4.8
Waste Sand Handling (ID# 7000)	0.9

Compliance with these limits and operation condition no. 9 shall make the PSD Rules, 326 IAC 2-3, not applicable. Compliance with these limits shall satisfy the requirements of 326 IAC 6-3-2 (Particulate Matter Emission Limitations for Process Operations).

Reason not incorporated: PM and PM10 limits to render the requirements of 326 IAC 2-2 (PSD) not applicable for all PM and PM10 emission units in the one (1) grey iron foundry line constructed in 1997 were re-calculated in pounds of PM and PM10 per ton of metal or sand throughput to more accurately reflect the allowable emissions. Therefore, the limits in the above referenced condition are no longer necessary. Also, the applicable particulate emission limitations pursuant to 326 IAC 6-3-2 have been included in the Part 70 permit.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit:

(a) All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

(b) CP-PC (70) 1725, issued on December 6, 1988;
OP-70-03-93-0068, issued on April 3, 1989;

Condition 6 of CP-PC (70) 1725 and condition 5 of OP-70-03-93-0068:

That sulfur dioxide emissions from natural gas combustion shall be limited to 6.0 pounds per million Btu heat input pursuant to 326 IAC 7-1 (Sulfur Dioxide Emission Limitations).

Reason not incorporated: 326 IAC 7-1 only applies to facilities with a potential to emit 25 tons per year or 10 pounds per hour of sulfur dioxide. Sulfur dioxide emissions from all natural gas combustion at this source are less than 10 pounds per hour or 25 tons per year, therefore, none of the natural gas combustion units are subject to this rule and the requirements of the above referenced conditions were not included in the Part 70 permit.

(c) Registered Construction and Operating Status No. 139-5817-00011, issued on May 21, 1996;

The following condition:

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations):

a) The volatile organic compound (VOC) content of coatings applied to automotive brake drums shall be limited to:

Coatings	Limit (pounds of VOC/gallon of coating less water delivered to the applicator)
Air Dried Coat	3.5

Reason not incorporated: For facilities constructed after July 1, 1990, 326 IAC 8-2-9 only applies if actual VOC emissions are greater than 15 pounds per day or potential VOC emissions are greater than 25 tons per year. Potential VOC emissions from this booth, which are the same as what was permitted in the registration, are less than 15 pounds per day, therefore, this rule was erroneously applied to this booth in the original Registration. Since the rule is not applicable, this condition was not incorporated into the Part 70 permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 12, 1996. Additional information was received on March 26, 1998 and May 6, 1999.

A notice of completeness letter was mailed to the source on January 13, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, page 1 of 16).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250
SO_2	less than 100
VOC	greater than 100, less than 250
CO	less than 100

NO_x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Triethylamine (TEA)	greater than 10
Glycol Ethers	less than 10
Hexane	less than 10
Benzene	less than 10
Phenol	less than 10
Manganese	greater than 10
Lead	greater than 10
Antimony	less than 10
Nickel	less than 10
Chromium	less than 10
TOTAL	greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10 and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	15
SO_2	1
VOC	31
CO	not reported
NO_x	0
HAP (specify)	not reported

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Single HAP	HAPs
GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988								
Coremaking (P4, P5, P6)(1)	3.58	3.58	--	<25.0	--	--	1.94	2.02
Coremaking (P7)(1)			--	<25.0	--	--	1.94	1.97
Charge Handling (P1, P2, P3)(2)	26.19	15.71	--	--	--	--	0.81	1.00
Melting System - Electric Induction Furnace (P8)(2)	8.21	8.21	--	--	--	--	0.02	0.04
Two (2) electric holding furnaces (P9)*	–	--	--	--	--	--	--	--
Six (6) ladle heaters (P10)	0.11	0.46	0.04	0.33	5.08	6.04	0.11	0.11
Inoculation (P11)(2)(3)	8.21	8.21	–	0.09	--	--	0.02	0.02
Pouring (P12 and P13)(2)(3)(8)	5.49	5.49	0.37	2.59	–	0.19	0.02	1.86
Casting Cooling (P14 and P15)(2)	3.90	3.90	--	--	--	--	0.02	0.02
Shakeout (P16)(2)(3)	5.53	5.53	--	22.21	--	--	0.02	0.02
Conveying System (P17 - P22)(2)	5.19	5.19	--	--	--	--	--	--
Shotblast Operations (P23 - P28)(2)	8.63	8.63	--	--	--	--	0.23	0.28
Grinding (P29 - P31)(2)	8.63	8.63	--	--	--	--	0.23	0.28
Sand Handling (P32 - P39)(4)	9.75	9.75	--	--	--	--	--	--
Insignificant Activities (P40, P41, P47 - P52, P53, P54, P58, P59)	6.50	6.55	0.01	0.05	0.77	0.92	0.02	0.02
Subtotal	<100.00	89.90	0.42	75.07	5.85	7.15	3.88 (TEA)	7.64

GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997								
Charge Handling (1000A)	21.00	21.00	--	--	--	--	0.65	0.80
Melting and Pouring (1000) (Stack ID 6100)[5][6][8]	17.40	17.40	0.37	2.60	--	0.19	0.34	1.49
Mold/Castings Cooling (2000) (Stack ID 6200A)[5]	17.78	17.78	--	--	--	--	0.55	0.67
Casting Shakeout (3000) (Stack ID 6200B)[5][6]	17.78	17.78	--	22.30	--	--	0.29	0.36
Sand Handling (4000) (Stack ID 6300)[7]	17.99	17.99	--	--	--	--	--	--
Waste Sand Handling (7000) (Stack ID 6400)	7.51	4.49	--	--	--	--	--	--
Finishing Operations (8000) (Stack ID FFA, FFB, FFC)[5]	0.45	0.45	--	--	--	--	0.01	0.02
Two (2) ladle heaters (6600, 6610)	0.03	0.13	0.01	0.10	1.47	1.75	0.03	0.03
Insignificant Activities (Surface coating (6601))	0.05	0.05	--	0.35	--	--	0.30	0.30
Subtotal	<100.00	97.07	0.38	25.35	1.47	1.94	1.84 (Mg)	3.67
Other Insignificant Activities								
Scrap yard (part of charge handling)	--	--	--	--	--	--	--	--
Total Emissions	200.00	186.97	0.80	100.42	7.32	9.09	3.88 (TEA)	11.31

(1) Emissions from the core machines P4-P6, constructed in 1988, will be limited to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable. Emissions from core machine P7, constructed in 1994, will also be limited to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(2) Emissions are after control where applicable and after a total metal throughput limitation of 87,295 tons per year for the two (2) foundry lines constructed in 1988 to limit PM and PM10 emissions to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.

(3) Inoculation (P11), Pouring (P12, P13) and Shakeout (P16) SO_2, VOC, NOx, and HAP emissions represent emissions after a metal throughput limit of 37,023 tons per year to limit VOC emissions from Inoculation,

Pouring and Shakeout to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(4) Emissions are after control and after a mold sand throughput limitation of 777,600 tons per year.

(5) Emissions are after control where applicable and after a metal throughput limitation of 70,000 tons per year for the foundry line constructed in 1997 to limit PM and PM10 emissions to less than 100 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.

(6) Pouring (1000) and Shakeout (3000) SO_2, VOC, NOx, and HAP emissions represent emissions after a metal throughput limit of 37,164 tons per year to limit VOC emissions from Pouring and Shakeout to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

(7) Emissions are after control and after a sand throughput limitation of 481,724 tons per year.

(8) HAP emissions listed under Pouring (P12 and P13) and melting and pouring (1000) include organic HAP emissions from pouring, cooling, and shakeout combined.

* Any emissions from the electric holding furnaces (P9) are accounted for in the emissions from melting in the electric induction furnaces.

County Attainment Status

The source is located in Rush County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Rush County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Rush County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The degreaser, an insignificant activity, is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20, (40 CFR 63.460 through 63.468, Subpart T) because it does not use a halogenated HAP cleaning solvent.

(c) On December 23, 2002, U.S. EPA proposed a NESHAP for iron and steel foundries. The NESHAP, 40 CFR 63.7680 - 63.7762, Subpart EEEEE, will apply to each new or existing affected source at an iron and steel foundry that is a major source of HAPs. A major source of HAPs is a source that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year. The affected sources covered by this proposed rule are each new or existing metal casting department and each new or existing mold and core making department at iron and steel foundries. Therefore, since this source is a major source of HAPs and performs casting and coremaking, it will be subject to this rule when it is final.

Source wide HAP emission limits, to make this source an area source, will not be included in the Part 70 permit at this time, however, the source may apply for a source modification to include federally enforceable HAP emission limits in the Part 70 permit prior to promulgation of the final rule so that the rule would not apply.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on December 9, 1996. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is major under 326 IAC 2-2 (Prevention of Significant Deterioration) because it is one of the 28 listed source categories and the source potential to emit (after controls) of PM, PM10, and VOC are greater than 100 tons per year. The source has not been reviewed under 326 IAC 2-2 (Prevention of Significant Deterioration) because the potential to emit of each pollutant from the two (2) grey iron foundry lines, constructed in 1988, combined, and the one (1) grey iron foundry line, constructed in 1997, is limited to less than 100 tons per year.

(a) The two (2) grey iron foundry lines, constructed in 1988, will limit PM and PM10 emissions from the foundry operations. The source shall comply with the following emission and throughput limits:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)	Limited PM/PM10 Emissions (tons/yr)
Charge Handling (P1 - P3)	Metal	N/A (0.6 from AP-42)	87,295	26.19

Coremaking (P4, P5, P6, P7)	Core Sand	0.41	N/A (maximum throughput is 2 tons/hr)	3.58
Melting System (P8) and Holding Furnaces (P9)	Metal melted	0.19	87,295	8.21
Inoculation (P11)	Metal	0.19	87,295	8.21
Pouring (P12, P13)	Metal poured	0.13	87,295	5.49
Casting Cooling (P14, P15)	Metal	0.09	87,295	3.90
Shakeout (P16)	Metal	0.13	87,295	5.53
Conveying (P17 - P22)	Metal	0.12	87,295	5.19
Shotblast Operations (P23 - P28)	Metal	0.20	87,295	8.63
Grinding (P29 - P31)	Metal	0.20	87,295	8.63
Sand Handling (P32 -P 39)	Mold Sand	0.03	777,600	9.75
TOTAL				93.31

Each of the cartridge collectors controlling particulate emissions from the above facilities shall be in operation at all times the facilities are in operation in order to comply with these emission limitations. Compliance with these limits will limit PM and PM10 emissions to less than 100 tons per year each making the PSD rule not applicable (See detailed calculations on page 6 of 16, in Appendix A).

VOC emissions from the coremaking, inoculation, pouring, and shakeout operations shall be limited as shown in the 326 IAC 8-1-6 applicability section on page 19 below.

(b) Pursuant to CP139-8845-00011, issued on December 10, 1997, the one (1) grey iron foundry line, constructed in 1997, will limit PM and PM10 emissions by limiting the metal melt rate to 70,000 tons per 12 consecutive month period. Also, the following limits shall apply:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)	Limited PM/PM10 Emissions (tons/yr)
Charge Handling (1000A)	Metal	N/A (0.6 from AP-42)	70,000	21.00
Melting & Pouring (1000)	Metal	0.50	70,000	17.40
Mold/Casting Cooling (2000)	Metal	0.51	70,000	17.78
Shakeout (3000)	Metal	0.51	70,000	17.78

Sand Handling System (4000)	Mold Sand	0.07	481,724	17.99
Waste Sand Handling System (7000)	Waste Sand	0.90 (PM) 0.54 (PM10)	16,644	7.51
Grinding/Cleaning (8000)	Metal	0.02	N/A (Maximum throughput is 5.5 tons/hr)	0.45
TOTAL				99.91

Each of the baghouses controlling particulate emissions from the above facilities shall be in operation at all times the facilities are in operation in order to comply with these emission limitations. Compliance with these limits will limit PM and PM10 emissions to less than 100 tons per year each making the PSD rule not applicable (See detailed calculations on page 10 of 16, in Appendix A).

Note: Although the maximum capacity of the waste sand handling operation is listed at 1.9 tons per hour pursuant to CP-139-8845-00011, the results from the latest stack test done for that operation and information received from INTAT Precision, Inc. indicate that it is possible for a higher throughput of sand to occur in the waste sand handling operation. The actual throughput of sand does not exceed 1.9 tons per hour, therefore, the source has agreed to limit the waste sand throughput to 16,644 tons per twelve (12) consecutive month period to render 326 IAC 2-2 not applicable.

Potential VOC emissions from the grey iron foundry line, constructed in 1997 are less than 100 tons per year, therefore VOC limits are not necessary to render 326 IAC 2-2 not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM10 and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a

source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2 (1), (2), or (3).

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). The two (2) grey iron foundries constructed in 1988, the three (3) core machines (P4 - P6) constructed in 1988, and the one (1) core machine (P7) constructed in 1994, were constructed before the rule applicability of July 27, 1997. The one (1) grey iron foundry constructed in 1997 does have the potential to emit manganese at greater than 10 tons per year and therefore the potential to emit total HAPs over 25 tons per year. However, the metal throughput to the grey iron foundry line constructed in 1997 shall not exceed 70,000 tons per year, which, in addition to the manganese limits shown below, will limit the single HAP emissions to less than 10 tons per year and the total HAP emissions to less than 25 tons per year making this rule not applicable.

Process	Material	Manganese Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)	Limited Manganese Emissions (tons/yr)
Charge Handling (1000A)	Metal	0.02	70,000	0.70
Melting & Pouring (1000)	Metal	0.02	70,000	0.70
Mold/Casting Cooling (2000)	Metal	0.02	70,000	0.70
Shakeout (3000)	Metal	0.02	70,000	0.70
Grinding/Cleaning (8000)	Metal	0.01	N/A (Maximum throughput is 5.5 tons/hr)	0.24
TOTAL				3.04

Each of the baghouses controlling metallic HAP emissions from the above facilities shall be in operation at all times the facilities are in operation in order to comply with these emission limitations.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The six (6) 2.3 MMBtu per hour ladle heaters (P10), the 0.9 and the 1.2 MMBtu per hour boilers (P40 and P41), and the two (2) 2.0 MMBtu per hour ladle heaters (6600 and 6610) are subject to the requirements of 326 IAC 6-2-4 since they are indirect heating facilities that were constructed after September 21, 1983. Pursuant to this rule, PM emissions from each heater and boiler shall be limited to 0.50 pound per MMBtu heat input. This emission limit was calculated using the following equation:

$$Pt = \frac{1.09}{}$$

$Q^{0.26}$

where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input
Q = Total source maximum operating capacity rating in MMBtu/hr heat input.
= 19.9 MMBtu/hr

Potential PM emissions from the each ladle heater and each boiler are less than 0.50 pound per MMBtu heat input, therefore, these units are in compliance with 326 IAC 6-2-4.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

and

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)	PSD Limitation (tons per year)
GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988				
Coremaking (P4, P5, P6, P7)	9, 10A, 10B	2.0	6.52	3.58
Charge Handling (P1, P2, P3)	N/A	20.0	30.51	26.19
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51	8.21
Inoculation (P11)	3A, 3B	20.0	30.51	8.21
Pouring (P12 and P13)	2	20.0	30.51	5.49
Casting Cooling (P14 and P15)	1A, 1B	20.0	30.51	3.90

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)	PSD Limitation (tons per year)
Shakeout (P16)	4A, 4B	20.0	30.51	5.53
Conveying System (P17 - P22)	6A, 6B	20.0	30.51	5.19
Shotblast Operations (P23 - P28)	8A, 8B	20.0	30.51	8.63
Grinding (P29 - P31)	7, 8A, 8B	20.0	30.51	8.63
Sand Handling (P32 - P39)	3A, 3B, 4A, 4B, 5	150.0	55.44	9.75
Subtotal	--	--	--	93.31
GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997				
Charge Handling (1000A)	NA	10.0	19.18	21.00
Melting & Pouring (1000)	6100	10.0	19.18	17.40
Mold/Casting Cooling (2000)	6200A	10.0	19.18	17.78
Casting Shakeout (3000)	6200B	10.0	19.18	17.78
Sand Handling (4000)	6300	70.0	47.77	17.99
Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)	PSD Limitation (tons per year)
Waste Sand Handling (7000)	6400	1.9	6.30	7.51
Grinding/Cleaning (8000)	FFA, FFB, FFC	5.50	12.85	0.45
Subtotal	--	--	--	99.91
Total	--	--	--	193.22

The cartridge collectors and baghouses shall be in operation at all times the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines are in operation, in order to comply with these limits (see Appendix A, pages 6 and 10 of 16 for complete calculations).

(b) Pursuant to 326 IAC 6-3-2 and 40 CFR 52, Subpart P, the particulate matter (PM) from the one (1) paint booth, identified as ID # 6601 shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The dry filters for particulate matter control shall be in operation at all times that the paint booth is in operation in order to comply with this limit.

(c) Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emission rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. The grinding and machining operations listed in the insignificant activities section and the other activities or categories not previously identified listed in the insignificant activities section shall be subject to this limit.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

(a) The four (4) isocure core machines are not subject to 326 IAC 8-1-6 (General Reduction Requirements).

(1) The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 221,333 pounds of resin per 12 consecutive month period. The total TEA usage for core machines P4, P5, and P6 shall not exceed 38,733 pounds of TEA per 12 consecutive month period.

(2) The resin usage for core machine P7, constructed in 1994, shall not exceed 221,333 pounds of resin per 12 consecutive month period. TEA usage for core machine P7 shall not exceed 38,733 pounds of TEA per 12 consecutive month period.

(3) The VOC emissions (not including TEA) from each of the Isocure core machines shall not exceed 0.05 pound per pound of resin.

(4) The TEA emissions from each of the Isocure core machines shall not exceed 5.6 pounds per ton of cores.

This will limit the total VOC emissions from core machines P4, P5, and P6 and the VOC emissions from core machine P7 each to less than 25 tons per year before controls. Therefore, the four (4) isocure core machines are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). The source voluntarily utilizes a TEA scrubber with a 90% control efficiency.

(b) The inoculation (P11), pouring (P12, P13), and shakeout operations (P16) have potential VOC emissions of greater than 25 tons per year. The throughput of metal to each of these operations shall not exceed 37,023 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. In addition, VOC emissions from the inoculation operation (P11) shall not exceed 0.005 lb/ton metal (based on U.S. EPA's FIRE data system, version 6.23), VOC emissions from the pouring operation (P12, P13) and cooling operation (P14, P15) combined shall not exceed 0.14 lb/ton metal (based on U.S. EPA's FIRE data system, version 6.23), and the VOC emissions from the shakeout operation (P16) shall not exceed 1.2 lb/ton metal (based on U.S. EPA's FIRE data system, version 6.23). This will limit the total VOC emissions from the two (2) foundry lines constructed in 1988 to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

Note: although there are no emission calculations for VOC from cooling, some of the VOC emissions from the foundry lines are likely to be emitted from the cooling operation also. Therefore, the cooling operation was included with the pouring operation in the VOC emission limit.

(c) The pouring (1000) and shakeout (3000) operations have potential VOC emissions of greater than 25 tons per year. The throughput of metal to each of these operations shall not exceed 37,164 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. In addition, VOC emissions from the pouring operation (1000) and cooling operation (2000) combined shall not exceed 0.14 lb/ton metal (based on U.S. EPA's FIRE data system, version 6.23), and the VOC emissions from the shakeout operation (3000) shall not exceed 1.2 lb/ton metal (based on U.S. EPA's FIRE data system, version 6.23). This will limit the total VOC emissions from the foundry line constructed in 1997 to less than 25 tons per year to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

Note: although there are no emission calculations for VOC from cooling, some of the VOC emissions from the foundry line are likely to be emitted from the cooling operation also. Therefore, the cooling operation was included with the pouring operation in the VOC emission limit.

(d) The one (1) paint booth, identified as ID # 6601, is not subject to the requirements of 326 IAC 8-1-6 because it is used for maintenance coating operations only and potential emissions are below 25 tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

The one (1) paint booth, identified as #6601 is not subject to the requirements of this rule because it was constructed after July 1, 1990 and potential VOC emissions are less than 15 pounds per day.

326 IAC 8-3-2 (Cold Cleaner Operations)

The degreaser (see Insignificant Activities), constructed after January 1, 1980, shall comply with the following requirements for cold cleaner degreaser operation and control. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreaser is not subject to the requirements of this rule because it was constructed prior to July 1, 1990.

Testing Requirements

(1) Testing is not required for the scrubber controlling TEA emissions from the core machines. Conservative emission factors were used to calculate potential TEA emissions from the core machines, TEA usage is equal to TEA emissions, and the scrubber is not required to comply with the VOC emission limits to render the requirements of 326 IAC 8-1-6 not applicable.

(2) Testing for PM and PM-10 will be required on the following cartridge collectors, unless otherwise noted, because the cartridge collectors are required to comply with the applicable PM and/or PM-10 limits for their associated emission units and testing is necessary to document compliance with the limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable:

(a) the cartridge collectors controlling the melting system (P8) and the inoculation operation (P11) exhausting to stacks 3A and 3B;
(b) the cartridge collector controlling the pouring operation (P12, P13) exhausting to stack 2;
(c) the two (2) cartridge collectors controlling the two (2) identical cooling lines, P14 and P15, of the casting cooling operation exhausting to stacks 1A and 1B. Since each cooling line is identical, testing will only be required on one (1) of these cartridge collectors;
(d) the cartridge collectors controlling the shakeout operation (P16) exhausting to stacks 4A and 4B;
(e) the cartridge collectors controlling the conveying operation (P17 - P22) exhausting to stacks 6A and 6B;
(f) the cartridge collectors controlling the shotblast (P23 - P28) and grinding operations (P29 - P31) exhausting to stacks 8A, 8B, and 7; and
(g) the cartridge collectors controlling the sand handling operations (P32 - P39) exhausting to stacks 3A, 3B, 4A, 4B, and 5.

(3) Testing for PM, PM-10, and manganese will be required on the following baghouses, unless otherwise noted, because the baghouses are required to comply with the applicable PM and/or PM-10 and manganese limits for their associated emission units, and testing is necessary to document compliance with the PM and PM10 limits to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable:

(a) the baghouse controlling the melting & pouring operation (1000) exhausting to stack 6100;
(b) the baghouse controlling the mold/casting cooling system (2000) exhausting to stack 6200A;
(c) the baghouse controlling the shakeout operation (3000) exhausting to stack 6200B;
(d) the baghouse controlling the sand handling system (4000) exhausting to stack 6300 (PM and PM10 testing only);
(e) the baghouse controlling the waste sand handling system (7000) exhausting to stack 6400 (PM and PM10 testing only); and
(f) the baghouse controlling the grinding/cleaning operation (8000) exhausting to stacks FFA, FFB, and FFC.

Note: PM and PM10 stack testing was performed on June 20 through June 23, 2000 on the melting & pouring operation (1000), the mold/casting cooling system (2000), the shakeout operation (3000), the sand handling system (4000), and the waste sand handling system (7000). Therefore, repeat testing for PM, PM10, and manganese will be required five (5) years from the date of these tests or between January, 2005 and June, 2005.

(4) Testing for VOC is required for the pouring (P12 and P13), cooling (P14 or P15 since both

cooling lines are identical), and shakeout operation (P16) in order to demonstrate that VOC emissions are less than 25 tons per year so that 326 IAC 8-1-6 is not applicable (Note: although there are no emission calculations for VOC from cooling, some of the VOC is likely to be emitted from the cooling operation also).

(5) Testing for VOC is required for the pouring (1000), cooling (2000), and shakeout operation (3000) in order to demonstrate that VOC emissions are less than 25 tons per year so that 326 IAC 8-1-6 is not applicable (Note: although there are no emission calculations for VOC from cooling, some of the VOC is likely to be emitted from the cooling operation also).

Testing is not required on any of the other emission units at this source because they do not meet any of the criteria which would require a stack test.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines have applicable compliance monitoring conditions as specified below:

   (a) Visible emissions notations of the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry line stack exhausts shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an

abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the cartridge collectors and baghouses controlling the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines, at least once per shift when the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines are in operation. When for any one reading, the pressure drop across any of the cartridge filters or baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

These monitoring conditions are necessary because the cartridge filters and baghouses for the charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70) and to render the requirements of 326 IAC 2-2 (PSD) not applicable.

2. There is no applicable compliance monitoring for the wet scrubber controlling TEA emissions from the core machines since it is not required to comply with any applicable emission limits.

3. The one (1) paint booth, identified as ID # 6601 has applicable compliance monitoring conditions as specified below:

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks SNP-1 and SNP-2 while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The

Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the dry filters for the one (1) paint booth, identified as ID # 6601 must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 40 CFR 52, Subpart P and 326 IAC 2-7 (Title V).

Conclusion

The operation of this grey iron foundry shall be subject to the conditions of the attached proposed **Part 70 Permit No. T139-7531-00011.**

Appendix A: Emission Summary

Company Name: Intat Precision Inc.
Address City IN Zip: 2148 State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity						
Pollutant	Two (2) 1988 Foundry Lines	One (1) 1997 Foundry Line	Coremaking	Surface Coating (Insignificant Activity)	Natural Gas Combustion From Insignificant Activities	Other Insignificant Activities	**TOTAL**
PM	6,600.94	1,966.60	31.54	3.54	0.02	9.11	8,611.75
PM10	1,544.14	511.88	4.73	3.54	0.07	9.11	2,073.47
SO2	1.79	0.89	0.00	0.00	0.01	0.00	2.69
NOx	6.92	2.19	0.00	0.00	0.92	0.00	10.03
VOC	118.15	58.79	53.26	0.35	0.05	0.00	230.60
CO	5.08	1.47	0.00	0.00	0.77	0.00	7.32
total HAPs	6.97	3.32	39.38	0.30	0.02	0.00	49.99
worst case single HAP**	(Manganese) 2.74	(Manganese) 1.37	(TEA) 39.24	(Glycol Ether) 0.30	(Hexane) 0.02	0.00	(Manganese) 157.03

Total emissions based on rated capacity at 8,760 hours/year.
PM and PM10 emissions from foundry lines include metallic HAP emissions.
Emissions from each foundry line includes natural gas combustion emissions from ladle heaters.

Controlled/Limited Emissions (tons/year)

	Emissions Generating Activity						
Pollutant	Two (2) 1988 Foundry Lines	One (1) 1997 Foundry Line	Coremaking	Surface Coating (Insignificant Activity)	Natural Gas Combustion From Insignificant Activities	Other Insignificant Activities	**TOTAL**
PM	88.10	99.08	3.58	0.05	0.02	9.11	199.94
PM10	88.03	98.97	3.58	0.05	0.07	9.11	199.81
SO2	0.91	0.71	0.00	0.00	0.01	0.00	1.63
NOx	6.48	2.10	0.00	0.00	0.92	0.00	9.50
VOC	25.23	25.00	12.91	0.35	0.05	0.00	63.54
CO	5.08	1.47	0.00	0.00	0.77	0.00	7.32
total HAPs	2.10	1.14	2.92	0.30	0.02	0.00	6.48
worst case single HAP**	(Manganese) 0.09	(Manganese) 0.10	(TEA) 2.82	(Glycol Ether) 0.30	(Hexane) 0.02	0.00	(Manganese) 3.77

Total emissions based on rated capacity at 8,760 hours/year, after control and limitations.
Controlled/Limited VOC and TEA emissions from coremaking include VOC limit to render 326 IAC 8-1-6 (BACT) not applicable and control of TEA emissions by scrubber.

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
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Reviewer: TE/EVP

CALCULATIONS FOR TWO (2) GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988 (EMISSIONS BEFORE CONTROL)

SCC# 3-04-003-19
Coremaking (P4, P5, P6, P7)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Core Sand		4000	2000	2		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged
	3.6	0.54	–	–	–	–
Potential Emissions lbs/hr	7.20	1.08	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	172.80	25.92	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**31.54**	**4.73**	**0.00**	**0.00**	**0.00**	**0.00**

SCC# 3-04-003-15
Charge Handling (P1, P2, P3)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/tons metal charged
	0.6	0.36	–	–	–	–
Potential Emissions lbs/hr	12.00	7.20	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	288.00	172.80	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**52.56**	**31.54**	**0.00**	**0.00**	**0.00**	**0.00**

SCC# 3-04-003-03
Melting System (P8) - Electric Induction Furnaces #1 through #3

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged
	0.9	0.86	–	–	–	–
Potential Emissions lbs/hr	18.00	17.20	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	432.00	412.80	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**78.84**	**75.34**	**0.00**	**0.00**	**0.00**	**0.00**

Note: All emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
The emission factor for lead from melting represents the average emission factor from FIRE version 6.23.

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
PIt ID: 139-00011
Reviewer: TE/EVP

SCC# 3-04-003-10
Inoculation (P11)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM **lbs/ton metal inoculated** 4.00	**PM10** **lbs/ton metal inoculated** 3.2	**SOx** **lbs/ton metal inoculated** –	**NOx** **lbs/ton metal inoculated** –	**VOC** **lbs/ton metal inoculated** 0.005	**CO** **lbs/ton metal inoculated** –
Potential Emissions lbs/hr	80.00	64.00	0.00	0.00	0.10	0.00
Potential Emissions lbs/day	1920.00	1536.00	0.00	0.00	2.40	0.00
Potential Emissions tons/year	**350.40**	**280.32**	**0.00**	**0.00**	**0.44**	**0.00**

SCC# 3-04-003-20
Pouring (P12 & P13)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM **lbs/ton metal charged** 4.2	**PM10** **lbs/ton metal charged** 2.06	**SOx** **lbs/ton metal charged** 0.02	**NOx** **lbs/ton metal charged** 0.01	**VOC** **lbs/ton metal charged** 0.14	**CO** **lbs/tons metal charged** –
Potential Emissions lbs/hr	84.00	41.20	0.40	0.20	2.80	0.00
Potential Emissions lbs/day	2016.00	988.80	9.60	4.80	67.20	0.00
Potential Emissions tons/year	**367.92**	**180.46**	**1.75**	**0.88**	**12.26**	**0.00**

SCC# 3-04-003-25
Casting Cooling (P14 & P15)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM **lbs/ton metal charged** 1.4	**PM10** **lbs/ton metal charged** 1.4	**SOx** **lbs/ton metal charged** –	**NOx** **lbs/ton metal charged** –	**VOC** **lbs/ton metal charged** –	**CO** **lbs/ton metal charged** –
Potential Emissions lbs/hr	28.00	28.00	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	672.00	672.00	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**122.64**	**122.64**	**0.00**	**0.00**	**0.00**	**0.00**

Note: All emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
PM10 emission factor for Inoculation from USEPA's AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, March 1990.

Appendix A: Grey Iron Foundry Operations

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

SCC# 3-04-003-31
Shakeout (P16)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM **lbs/ton metal charged**	**PM10** **lbs/ton metal charged**	**SOx** **lbs/ton metal charged**	**NOx** **lbs/ton metal charged**	**VOC** **lbs/ton metal charged**	**CO** **lbs/ton metal charged**
	3.2	2.24	–	–	1.2	–
Potential Emissions lbs/hr	64.00	44.80	0.00	0.00	24.00	0.00
Potential Emissions lbs/day	1536.00	1075.20	0.00	0.00	576.00	0.00
Potential Emissions tons/year	**280.32**	**196.22**	**0.00**	**0.00**	**105.12**	**0.00**

SCC# 3-04-003-40
Shotblast Operations (P23 - P28)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM **lbs/ton metal charged**	**PM10** **lbs/ton metal charged**	**SOx** **lbs/ton metal charged**	**NOx** **lbs/ton metal charged**	**VOC** **lbs/ton metal charged**	**CO** **lbs/tons metal charged**
	17	1.7	–	–	–	–
Potential Emissions lbs/hr	340.00	34.00	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	8160.00	816.00	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**1489.20**	**148.92**	**0.00**	**0.00**	**0.00**	**0.00**

Note: All emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Grey Iron Foundry Operations

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

SCC# 3-04-003-40
Grinding (P29 - P31)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Iron		40000	2000	20		
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
	lbs/ton metal charged	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**
	17	1.7	–	–	–	–
Potential Emissions lbs/hr	340.00	34.00	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	8160.00	816.00	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**1489.20**	**148.92**	**0.00**	**0.00**	**0.00**	**0.00**

SCC# 3-04-003-50
Sand Handling (P32 - P36)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Sand		300000	2000	150		
	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
	lbs/ton sand handled	**lbs/ton sand handled**	**lbs/ton sand handled**	**lbs/ton sand handled**	**lbs/ton sand handled**	**lbs/ton sand handled**
	3.6	0.54	–	–	–	–
Potential Emissions lbs/hr	540.00	81.00	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	12960.00	1944.00	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**2365.20**	**354.78**	**0.00**	**0.00**	**0.00**	**0.00**

Note: All emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Total Uncontrolled PTE (tons/year)	**6627.82**	**1543.86**	**1.75**	**0.88**	**117.82**	**0.00**

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
PIt ID: 139-00011
Reviewer: TE/EVP

CALCULATIONS FOR TWO (2) GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988 (EMISSIONS AFTER CONTROL)

Process	Stack ID	Grain Loading per Dry Standard Cubic Foot of Outlet Air	Stack Gas Flow Rate (scfm)	Total Potential Emissions After Control (lbs/hr)	Total Potential PM/PM10 Emissions After Control (tons/year)	Total Potential PM/PM10 Emissions After Control (lb/ton metal or sand)	Total Limited PM/PM10 Emissions After Control (tons/year)
Charge Handling (P1, P2, P3)*	N/A	–	–	0.24	1.05	0.01	1.05
Coremaking (P4, P5, P6, P7)	9, 10A, 10B	0.007	13615	0.82	3.58	0.41	3.58
Melting System (P8) - Electric Induction Furnaces #1 - #3	3A, 3B	0.007	62677	3.76	16.47	0.20	9.00
Innoculation (P11)	3A, 3B	0.007	62677	3.76	16.47	0.20	9.00
Pouring (P12, P13)	2	0.007	41958	2.52	11.03	0.17	7.65
Casting Cooling (P14, P15)	1A, 1B	0.007	29757	1.79	7.82	0.17	7.65
Shakeout (P16)	4A, 4B	0.007	42253	2.54	11.10	0.20	9.00
Conveying (P17 - P22)	6A, 6B	0.007	39626	2.38	10.41	0.16	7.20
Shotblast Operations (P23 - P28)	8A, 8B	0.007	65879	3.95	17.31	0.20	9.00
Grinding ((P29 - P31)	7, 8A, 8B	0.007	65879	3.95	17.31	0.20	9.00
Sand Handling (P32 - P39)	3A, 3B, 4A, 4B, 5	0.007	62677	3.76	16.47	0.05	19.44
				29.46	**129.03**		**91.57**

* Controlled emissions based on a 98% control efficiency from the building enclosure. Emissions shown for charge handling are PM emissions only. PM10 emissions after control are 0.63 ton/yr.

Note: Since controlled emissions are based on the outlet grain loading, controlled PM emissions are assumed to be equal to controlled PM10 emissions. PSD threshold of 100 tons/year. Therefore, the company has agreed to take the limits listed in the table below.

Type of Material	Maximum Usage (tons/hr)	Limited Usage (tons/yr)
Metal	20	90000
Mold Sand	150	777600
Core Sand	2	17520

PM and PM10 emissions are limited to less than 100 tons per year, thus 326 IAC 2-2 does not apply.

Methodology:

Total Potential Emissions (lbs/hr) = ((grain loading * stack gas flow rate (scfm) * (60 min/1 hr)) / (1 lb/7000 grains))

Total Potential Emissions (tons/yr) = ((grain loading * stack gas flow rate (scfm) * (60 min/1 hr)) / (1 lb/7000 grains)) * (8760 hrs/2000 lbs)

Total Potential Emissions (lb/ton metal) = Total Potential Emissions (lbs/hr) / maximum usage (tons/yr)

Total Limited Potential Emissions (tons/yr) = ((Total Potential Emissions (lb/ton metal)) * Limited usage (tons/yr)) / (1 ton/2000 lbs)

Type of Material	Maximum Usage (tons/hr)	Limited Usage (tons/yr)
Metal	20	37023

Process	Stack ID	Total Limited VOC Emissions (tons/year)	Total Limited VOC Emissions (lb/ton metal)
Innoculation (P11)	3A, 3B	0.09	0.005
Pouring (P12, P13)	2	2.59	0.14
Shakeout (P16)	4A, 4B	22.21	1.20
Total		**24.90**	

VOC emissions from the two (2) foundry lines constructed in 1988 are limited to less than 25 tons per year, therefore, 326 IAC 8-1-6 does not apply.

Company Name: Intat Precision Inc.
Address City IN Zip: 2148 State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

CALCULATIONS FOR ONE (1) GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997 (EMISSIONS BEFORE CONTROL)

SCC# 3-04-003-03
Melting System - Electric Induction Furnaces (1000)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron	20000	2000	10

	PM lbs/ton metal charged 0.9	PM10 lbs/ton metal charged 0.86	SOx lbs/ton metal charged --	NOx lbs/ton metal charged --	VOC lbs/ton metal charged --	CO lbs/tons metal charged --
Potential Uncontrolled Emissions lbs/hr	9.00	8.60	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/day	216.00	206.40	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year	**39.42**	**37.67**	**0.00**	**0.00**	**0.00**	**0.00**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
The emission factor for lead represents the average emission factor from FIRE version 6.23.

SCC# 3-04-003-15
Charge Handling (1000A)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron	20000	2000	10

	PM lbs/ton metal charged 0.6	PM10 lbs/ton metal charged 0.36	SOx lbs/ton metal charged --	NOx lbs/ton metal charged --	VOC lbs/ton metal charged --	CO lbs/ton metal charged --
Potential Emissions lbs/hr	6.00	3.60	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	144.00	86.40	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**26.28**	**15.77**	**0.00**	**0.00**	**0.00**	**0.00**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-20
Pouring (1000)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron	20000	2000	10

	PM lbs/ton metal charged 4.2	PM10 lbs/ton metal charged 2.06	SOx lbs/ton metal charged 0.02	NOx lbs/ton metal charged 0.01	VOC lbs/ton metal charged 0.14	CO lbs/tons metal charged --
Potential Emissions lbs/hr	42.00	20.60	0.20	0.10	1.40	0.00
Potential Emissions lbs/day	1008.00	494.40	4.80	2.40	33.60	0.00
Potential Emissions tons/year	**183.96**	**90.23**	**0.88**	**0.44**	**6.13**	**0.00**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

SCC# 3-04-003-25
Mold/Casting Cooling (2000)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron		20000	2000	10

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged
	1.4	1.4	--	--	--	--
Potential Emissions lbs/hr	14.00	14.00	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	336.00	336.00	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**61.32**	**61.32**	**0.00**	**0.00**	**0.00**	**0.00**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-31
Shakeout (3000)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron		20000	2000	10

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/tons metal charged
	3.2	2.24	--	--	1.20	--
Potential Emissions lbs/hr	32.00	22.40	0.00	0.00	12.00	0.00
Potential Emissions lbs/day	768.00	537.60	0.00	0.00	288.00	0.00
Potential Emissions tons/year	**140.16**	**98.11**	**0.00**	**0.00**	**52.56**	**0.00**

SCC# 3-04-003-50
Sand and Waste Sand Handling System (4000)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Sand		140000	2000	70

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged
	3.6	0.54	--	--	--	--
Potential Emissions lbs/hr	252.00	37.80	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	6048.00	907.20	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**1103.76**	**165.56**	**0.00**	**0.00**	**0.00**	**0.00**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

SCC# 3-04-003-40
Finishing/Grinding (8000)

TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Iron	11000	2000	5.5

	PM **lbs/ton metal charged**	**PM10** **lbs/ton metal charged**	**SOx** **lbs/ton metal charged**	**NOx** **lbs/ton metal charged**	**VOC** **lbs/ton metal charged**	**CO** **lbs/tons metal charged**
	17	1.7	--	--	--	--
Potential Emissions lbs/hr	93.50	9.35	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	2244.00	224.40	0.00	0.00	0.00	0.00
Potential Emissions tons/year	**409.53**	**40.95**	**0.00**	**0.00**	**0.00**	**0.00**
Total Uncontrolled PTE (tons/year)	**1964.43**	**509.61**	**0.88**	**0.44**	**58.69**	**0.00**

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

CALCULATIONS FOR ONE (1) GREY IRON FOUNDRY LINES CONSTRUCTED IN 1997 (EMISSIONS AFTER CONTROL)

Process	Stack ID	Grain Loading per Dry Standard Cubic Foot of Outlet Air	Stack Gas Flow Rate (scfm)	Total Potential PM/PM10 Emissions After Control (lbs/hr)	Total Potential PM/PM10 Emissions After Control (tons/year)***	Total Potential PM/PM10 Emissions After Control (lb/ton metal or sand)	Total Limited PM/PM10 Emissions After Control (tons/year)
Charge Handling (1000A)*	N/A	--	--	0.12	0.53	0.01	0.53
Melting & Pouring (1000)	6100	0.01	58000	4.97	21.77	0.70	24.50
Mold/Casting Cooling (2000)	6200A	0.01	59250	5.08	22.24	0.60	21.00
Shakeout (3000)	6200B	0.01	59250	5.08	22.24	0.80	28.00
Sand and Waste Sand Handling System (4000)	6300	0.01	61000	5.23	22.90	0.10	24.30
Sand and Waste Sand Handling System (4000)	6400	0.01	20000	1.71	7.51		
Grinding/Cleaning (8000)**	FEA,FEB,FEC	0.01	1200	0.10	0.45	0.03	0.72
				22.29	**97.65**		**99.05**

* Controlled emissions based on a 98% control efficiency from the building enclosure. Emissions shown for charge handling are PM emissions only. PM10 emissions after control are 0.32 ton/yr.

** Grinding/Cleaning PM/PM10 emission factor based on maximum metal throughput of 5.5 tons per hour.
*** Although controlled emissions are shown to be less than the limited emissions, these are based on manufacturer's specs. only. Therefore, since potential emissions from these units are greater than 100 tons/yr, limits must be added to ensure that the requirements of 326 IAC 2-2 do not apply.

Note: Pursuant to CP-139-8845-00011, issued on December 10, 1997, the total PM emissions after control exceed the PSD threshold of 99 tons/year. Therefore, the company has agreed to limit the amount of metal melted to 70,000 tons per consecutive 12 month period rolled on a monthly basis.

Type of Material	Maximum Usage (tons/hr)	Limited Usage (tons/yr)
Metal	10	70000
Sand	70	490000

Methodology:

Total Potential Emissions (lbs/hr) = ((grain loading * stack gas flow rate (scfm) * (60 min/1 hr)) / (1 lb/7000 grains))

Total Potential Emissions (tons/yr) = ((grain loading * stack gas flow rate (scfm) * (60 min/1 hr)) / (1 lb/7000 grains)) * (8760 hrs/2000 lbs)

Total Potential Emissions (lb/ton metal) = Total Potential Emissions (lbs/hr) / maximum metal charged (tons/yr)

Total Limited Potential Emissions (tons/yr) = ((Total Potential Emissions (lb/ton metal)) * Limited metal charged (tons/yr)) / (1 ton/2000 lbs)

Type of Material	Maximum Usage (tons/hr)	Limited Usage (tons/yr)
Metal	10	37164

Process	Stack ID	Total Limited VOC Emissions (tons/year)	Total Limited VOC Emissions (lb/ton metal)
Pouring (1000)	6100	2.60	0.14
Shakeout (3000)	6200B	22.30	1.20
Total		**24.90**	

VOC emissions from the one (1) foundry line constructed in 1997 are limited to less than 25 tons per year, therefore, 326 IAC 8-1-6 does not apply.

Appendix A: Emission Calculations
HAP Emissions from Foundry Operations

Company Name: Intat Precision Inc.
Address City IN Zip: 2148 State Road 3 North, Rushville, IN 46173
Operating Permit No.: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

CALCULATIONS FOR TWO (2) GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988

Process	Maximum Rate (tons iron/hr)	Limited Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Melting - Electric Induction Furnaces #1 - #3 EPA SCC# 3-04-003-03	20.0	10.27	lead	0.01000	0.88	4.5E-03	Baghouse	99.00%
			manganese	0.02600	2.28	1.2E-02		
			Total Metal HAPs	0.04000	3.50	1.8E-02		
			TOTAL		**3.50**	**0.02**		
Pouring (P12 & P13) SCC# 3-04-003-20	20.0	4.23	manganese	0.00100	0.09	1.9E-04	Baghouse	99.00%
			Total Metal HAPs	0.00140	0.12	2.6E-04		
			TOTAL		**0.12**	**2.6E-04**		
Casting Cooling (P14 & P1 SCC# 3-04-003-25	20.0	10.27	manganese	0.00006	0.01	2.7E-05	Baghouse	99.00%
			Total Metal HAPs	0.00008	0.01	3.6E-05		
			TOTAL		**0.01**	**3.6E-05**		
Shakeout (P16) SCC# 3-04-003-31	20.0	4.23	manganese	0.00420	0.37	7.8E-04	Baghouse	99.00%
			Total Metal HAPs	0.00600	0.53	1.1E-03		
			TOTAL		**0.53**	**1.1E-03**		
Shotblast Operations (P23 SCC# 3-04-003-40	20.0	10.27	manganese*	N/A	0.00	4.1E-02	Baghouse	99.00%
			Total Metal HAPs*	0.00224	0.20	7.2E-02		
			TOTAL		**0.20**	**0.07**		
Grinding (P29 - P31) SCC# 3-04-003-40	20.0	10.27	manganese*	N/A	0.00	4.1E-02	Baghouse	99.00%
			Total Metal HAPs*	0.00224	0.20	7.2E-02		
			TOTAL		**0.20**	**0.07**		

Total Potential Emissions Before Controls		**Total Limited Emissions After Controls**	
Lead	0.88 tons/year	4.5E-03	tons/year
manganese	2.74 tons/year	0.09	tons/year
Total Metal HAPs	**4.55 tons/year**	**0.16**	**tons/year**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons
Emission factors are from the Background Information Document (BID) for the proposed NESHAP for Iron and Steel Foundries, Subpart EEEEE, Table 3-13.
* Uncontrolled emission factors for Shotblasting and Grinding are based on Table 3-12 where the total metal HAPs is given as a percentage of PM. The PM emissio
used to calculate the metal HAP emission factor. There is no uncontrolled emission factor for manganese provided. The controlled emission factors are from Table 3

Appendix A: Emission Calculations
HAP Emissions from Foundry Operations

Company Name: Intat Precision Inc.
Address City IN Zip: 2148 State Road 3 North, Rushville, IN 46173
Operating Permit No.: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

CALCULATIONS FOR ONE (1) GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997 (EMISSIONS BEFORE CONTROL)

Process	Maximum Rate (tons iron/hr)	Limited Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Melting - Electric Induction Furnaces (1000) EPA SCC# 3-04-003-03	10	7.99	lead	0.01000	0.44	0.03	Baghouse	90.25%
			manganese	0.02600	1.14	0.09		
			Total Metal HAPs	0.04000	1.75	0.14		
			TOTAL		**1.75**	**0.14**		
Pouring (1000) SCC# 3-04-003-20	10.0	4.24	manganese	0.00100	0.04	1.8E-03	Baghouse	90.25%
			Total Metal HAPs	0.00140	0.06	2.5E-03		
			TOTAL		**0.06**	**2.5E-03**		
Casting Cooling (2000) SCC# 3-04-003-25	10.0	4.24	manganese	0.00006	2.6E-03	4.0E-04	Baghouse	63.73%
			Total Metal HAPs	0.00008	3.5E-03	5.4E-04		
			TOTAL		**0.01**	**9.4E-04**		
Shakeout (3000) SCC# 3-04-003-31	10.0	4.24	manganese	0.00420	0.18	0.01	Baghouse	84.13%
			Total Metal HAPs	0.00600	0.26	0.02		
			TOTAL		**0.26**	**0.02**		
Grinding (8000) SCC# 3-04-003-40	5.5	N/A	manganese*	N/A	0.00	2.2E-02	Baghouse	99.89%
			Total Metal HAPs*	0.00224	0.05	3.9E-02		
			TOTAL		**0.05**	**0.04**		

Total Potential Emissions Before Controls		**Total Limited Emissions After Controls**	
Lead	0.44 tons/year		0.03 tons/year
manganese	1.37 tons/year		0.10 tons/year
Total Metal HAPs	**2.14 tons/year**		**0.20 tons/year**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons
Emission factors are from the Background Information Document (BID) for the proposed NESHAP for Iron and Steel Foundries, Subpart EEEEE, Table 3-13.
* Uncontrolled emission factors for Grinding are based on Table 3-12 where the total metal HAPs is given as a percentage of PM. The PM emission factor from that table was metal HAP emission factor. There is no uncontrolled emission factor for manganese provided. The controlled emission factors are from Table 3-13 of the BID.

Appendix A: Grey Iron Foundry Operations

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Title V: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

HAP Emissions from Pouring, Cooling, and Shakeout for all Foundry Operations

Pollutant	Max. Resin Usage (lb/hr)	Limited Resin Usage (lb/hr)	Emission Factor (lb pollutant/lb resin)	Potential HAP Emissions (tons/yr)	Limited HAP Emissions (tons/yr)
Acrolein	64	46.0	0.000031	0.01	0.01
Benzene	64	46.0	0.005351	1.50	1.08
Formaldehyde	64	46.0	0.000022	0.01	0.00
Hydrogen Cyanide	64	46.0	0.001053	0.30	0.21
Xylenes	64	46.0	0.000571	0.16	0.12
Naphthalene	64	46.0	0.000022	0.01	0.00
Phenol	64	46.0	0.003904	1.09	0.79
Toluene	64	46.0	0.000833	0.23	0.17
Total Aromatic Amines	64	46.0	0.000351	0.10	0.07
Total C2 to C5 Aldehydes	64	46.0	0.000219	0.06	0.04
TOTAL				**3.46**	**2.49**

HAP emission factors were obtained from the article entitled "Calculating Emission Factors for Pouring, Cooling, and Shakeout", by Gary E. Mosher , published in the Oct. 19
See page 14 of Appendix A for calculation of resin usage limit.

Company Name: Intat Precision Inc.
Plant Location: 2148 N. State Road 3, Rushville, IN 46173
County: Rush
Permit Reviewer: TE/EVP
Title V #: 139-7531
Plt. ID #: 139-00011

Isocure Core Making Process

Machine	Date of Construction	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max TEA Usage (lb TEA/ton cores)	Potential VOC Emissions from resin evap (tons/yr)	Potential TEA Emissions from TEA usage (tons/yr)	Total Potential VOC Emissions (tons/yr)
P4	1988	0.5	1.60%	1.6	4.48	3.50	9.81	13.32
P5	1988	0.5	1.60%	1.6	4.48	3.50	9.81	13.32
P6	1988	0.5	1.60%	1.6	4.48	3.50	9.81	13.32
P7	1994	0.5	1.60%	1.6	4.48	3.50	9.81	13.32
Total						**14.02**	**39.24**	**53.26**

Limits Necessary to render 326 IAC 8-1-6 (BACT) not applicable:

Core Machines	VOC limit (tons/yr)	VOC EF for resin evaporation (lb/ton cores)	VOC EF for resin evaporation (lb VOC/lb resin)	TEA EF (lb/ton cores)	core production (tons cores/yr)	TEA usage limit (lbs/yr)	resin usage limit (lbs/yr)
P4 P5 P6	24.9	1.6	0.05	4.48	8,223	36,841	263,150
P7	N/A	1.6	0.05	4.48	4,380	19,622	140,160
Total					**12,603**	**56,463**	**403,310**

Note: The total VOC emissions from all the core machines constructed in 1988 must be limited to less than 25 tons per year to render 326 IAC 8-1-6 (BACT) not applicable.

Core Machines	Controlled TEA Emissions (tons/yr)	Limited VOC Emissions from Resin (tons/yr)	TEA Scrubber Control Eff. (%)
P4 through P6	1.84	6.58	90.00%
P7	0.98	3.50	90.00%
Total	**2.82**	**10.08**	

Total VOC Emissions after control (tons/yr): **12.91**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **INTAT Precision Inc.**
Address City IN Zip: **2148 State Road 3 North, Rushville, IN 46173**
Title V: **139-7531**
Plt ID: **139-00011**
Reviewer: **Trish Earls/EVP**

Unit ID	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
Six (6) ladle heaters, P10	13.8	120.9
Two (2) ladle heaters, 6600 & 6610	4.0	35.0
Boilers, P40 and P41	2.1	18.4

	Pollutant					
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
P10 Potential Emissions in tons/yr	0.11	0.46	0.04	6.04	0.33	5.08
6600, 6610 Potential Emissions in tons/yr	0.03	0.13	0.01	1.75	0.10	1.47
Insig. Act. Potential Emissions in tons/yr	0.02	0.07	0.01	0.92	0.05	0.77

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: **INTAT Precision Inc.**
Address City IN Zip: **2148 State Road 3 North, Rushville, IN 46173**
Title V: **139-7531**
Plt ID: **139-00011**
Reviewer: **Trish Earls/EVP**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
P10 Potential Emissions in tons/yr	1.269E-04	7.253E-05	4.533E-03	1.088E-01	2.055E-04
6600, 6610 Potential Emissions in tons/yr	3.679E-05	2.102E-05	1.314E-03	3.154E-02	5.957E-05
Insig. Act. Potential Emissions in tons/yr	1.932E-05	1.104E-05	6.899E-04	1.656E-02	3.127E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	**TOTAL**
P10 Potential Emissions in tons/yr	3.022E-05	6.649E-05	8.462E-05	2.297E-05	1.269E-04	**0.11**
6600, 6610 Potential Emissions in tons/yr	8.760E-06	1.927E-05	2.453E-05	6.658E-06	3.679E-05	**0.03**
Insig. Act. Potential Emissions in tons/yr	4.599E-06	1.012E-05	1.288E-05	3.495E-06	1.932E-05	**0.02**

Methodology is the same as page 14.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations (Insignificant Activity)

Company Name: **Intat Precision Inc.**
Address City IN Zip: **2148 State Road 3 North, Rushville, IN 46173**
Title V: **139-7531**
Plt ID: **139-00011**
Reviewer: **TE/EVP**

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
94121 Water Based Paint	11.7	43.90%	41.7%	2.2%	58.4%	38.40%	0.00341	90.000	0.62	0.26	0.08	1.90	0.35	3.54	0.67	60%

State Potential Emissions **Add worst case coating to all solvents**

0.08	**1.90**	**0.35**	**3.54**

PM control eff. of dry filters	Controlled VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)
98.50%	**0.08**	**1.90**	**0.35**	**0.05**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

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HAP Emission Calculations

Material	Density (Lb/Gal)	Weight % Glycol Ether	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Potential Glycol Ether tons per year
94121 Water Based Paint	11.7	1.90%	0.00341	90.000	0.30

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Grey Iron Foundry Operations
HAP Emission Calculations - Coremaking

Company Name: Intat Precision Inc.
Address City IN Zip: State Road 3 North, Rushville, IN 46173
Operating Permit No.: 139-7531
Plt ID: 139-00011
Reviewer: TE/EVP

Material	Process	Maximum Usage (lbs/hr)	Weight % Phenol	Weight % MDI	Weight % Naphthalene	Weight % Formaldehyde	Weight % Xylene	Weight % Cumene	Weight % 1,2,4 Trimethyl-Benzene	Phenol Emissions (ton/yr)	MDI Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	1,2,4 Trimethyl-benzene Emissions (ton/yr)
Phenolic Urethane Cold Box Core Making																
Part I Binder	P4 - P7	35.20	6.00%	0.00%	0.00%	0.10%	0.42%	0.18%	1.20%	0.00	0.00	0.00	0.003	0.02	0.01	0.06
Part II Binder	P4 - P7	28.80	0.00%	44.00%	0.91%	0.00%	0.11%	0.00%	0.16%	0.00	0.00	0.04	0.00	0.005	0.00	0.01
										0.00	**0.00**	**0.04**	**0.00**	**0.03**	**0.01**	**0.07**

Total HAPs (tons/yr)
0.14

Total Potential Emissions:

Material	Process	Limited Usage (lbs/hr)	Weight % Phenol	Weight % MDI	Weight % Naphthalene	Weight % Formaldehyde	Weight % Xylene	Weight % Cumene	Weight % 1,2,4 Trimethyl-Benzene	Phenol Emissions (ton/yr)	MDI Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	1,2,4 Trimethyl-benzene Emissions (ton/yr)
Phenolic Urethane Cold Box Core Making																
Part I Binder	P4 - P7	25.32	6.00%	0.00%	0.00%	0.10%	0.42%	0.18%	1.20%	0.00	0.00	0.00	0.002	0.02	0.01	0.04
Part II Binder	P4 - P7	20.72	0.00%	44.00%	0.91%	0.00%	0.11%	0.00%	0.16%	0.00	0.00	0.03	0.00	0.003	0.00	0.005
										0.00	**0.00**	**0.03**	**0.00**	**0.02**	**0.01**	**0.05**

Total HAPs (tons/yr)
0.10

Total Limited Emissions:

Reduction Factors for Core Making

Pollutant	Binder Reduction Factor
Phenol	0.00%
MDI	0.00%
Naphthalene	3.25%
Formaldehyde	2.00%
Xylene	3.25%
Cumene	3.25%
1,2,4 Trimethylbenzene	3.25%

METHODOLOGY

Max. Hourly Resin Usage Rate = Max. Core Production (tons/hr) * 1.6% (max. resin content) * 2000 lbs/ton
HAP Emissions from Resins = Max. Hourly Usage Rate * % HAP * Reduction Factor * 8760 hrs/yr * 1 ton/2000 lbs
Reduction factors obtained from the American Foundrymen's Society Publication entitled "Form R Reporting of Binder Chemicals used in Foundries", and refers to the weight percent of HAP that is emitted to the atmosphere.
Limited resin usage based on calculations for core making on page 13 of this Appendix A.